Tennessee and Big Sandy River Basins

Cause Group Code: 001R-01-BAC South Fork Holston River and Tributaries

Cause Location: This segment includes the mainstem South Fork Holston River from the headwaters downstream to the Barton Creek confluence; from the Rowland Creek confluence downstream to the Grosses Creek confluence; and the Lower South Fork Holston River from the South Holston Lake backwaters upstream to the Rush Creek confluence. It also includes Bishop Branch from the confluence with South Fork Holston River upstream to the confluence with Parker Branch, Grosses Creek from the headwaters downstream to the confluence with South Fork Holston River, Slemp Creek from the headwaters downstream to the confluence with the South Fork Holston River, and St. Clair Creek, a South Fork Holston River tributary south of St. Clair Bottom.

City / County: Smyth Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station located at 6CSFH075.61 had a 28% exceedance of the E.coli water quality standard, 6CSFH110.45 had a 33% exceedance, 6CSFH097.42 had a 28% exceedance of the E, coli water quality standard. Station 6CGRC000.68 had a 67% exceedance of the E. coli water quality standard, station 6CBSC000.10 had a 91% exceedance, station 6CSLM000.67 had a 40% exceedance, and station 6BSTC000.20 had a 23% exceedance of the E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O01R_BSC01A02 / Bishop Branch / South Fork Holston tributary from south at Riverside in WQS Section 6 (TH02).	4A	Escherichia coli (E. coli)		2010	L	0.48
VAS-O01R_GRC01A00 / Grosses Creek / From the headwaters downstream to the South Fork Holston River confluence, southeast of Loves Mill, WQS Section 6, DGIF vi (TH02/03)	4A	Escherichia coli (E. coli)		2010	L	4.00
VAS-O01R_SFH01A00 / South Fork Holston River / Mainstem South Fork Holston River from Rowland Creek confluence downstream to Grosses Creek confluence, WQS Section 6 (TH02).	4A	Escherichia coli (E. coli)		2002	L	8.73
VAS-O01R_SFH03A00 / South Fork Holston River / Mainstem South Fork Holston River from headwaters downstream to Barton Branch confluence, WQS Section 6, DGIF ii (TH01).	4A	Escherichia coli (E. coli)		2010	L	9.58
VAS-O01R_SLM01A02 / Slemp Creek / Upper Slemp Creek, nort of Sugar Grove in WQS Section 6 (TH01).	h 4A	Escherichia coli (E. coli)		2010	L	3.85
VAS-O01R_STC01A02 / Saint Clair Creek / A South Fork Holstor tributary south of St. Clair Bottom, in WQS Section 6 (TH02).	1 4A	Escherichia coli (E. coli)		2016	L	3.68
VAS-O02R_SFH02A00 / South Fork Holston River / Lower South Fork Holston River from Rockhouse Run confluence at South Holston Lake backwaters, river mile 73.00, upstream to the Rush Creek confluence, WQS Section 6 (TH03/07).	4A	Escherichia coli (E. coli)		2004	L	12.98
South Fork Holston River and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total I	mpaired	Size by Water Type:				43.30
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O01R_SFH03A00 / South Fork Holston River / Mainstem South Fork Holston River from headwaters downstream to Barton Branch confluence, WQS Section 6, DGIF ii (TH01).	4A	Fecal Coliform		2004	L	9.58

Tennessee and Big Sandy River Basins

South Fork Holston River and Tributaries

Recreation

Estuary (Sq. Miles) (Acres)

Reservoir

River (Miles)

Fecal Coliform - Total Impaired Size by Water Type:

9.58

Sources:

Grazing in Riparian or Shoreline Zones

Livestock (Grazing or Feeding Operations)

Rural (Residential Areas)

Source Unknown

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O01R-02-PH **Hurricane Creek Tributary**

Cause Location: This is an unnamed tributary of Hurricane Creek in Smyth County north of the Appalachian Trail.

City / County: Smyth Co. Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5A

pH measurements at station 6CXEE000.72 failed to meet the pH water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-O01R_XEE01A08 / Hurricane Creek tributary / On Hurricane 2010 1.12 5A pH Mountain, WQS Section 6, DGIF ii (TH01).

Hurricane Creek Tributary Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 1.12

pH - Total Impaired Size by Water Type:

Sources:

Natural Sources

Tennessee and Big Sandy River Basins

Cause Group Code: O02R-01-HG South Fork Holston River

Cause Location: This segment extends from the Grosses Creek confluence downstream to Rush Creek.

City / County: Washington Co. Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Two samples at station 6CSFH0088.91 exceeded the Mercury screening values in 2007.

First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-O02R_SFH01B02 / South Fork Holston River / South Fork 6.14 2010 Mercury in Fish Tissue Holston River from Grosses Creek confluence south of Loves Mill. downstream to Rush Creek confluence, WQS Section 6 (TH03). South Fork Holston River Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Fish Consumption**

Mercury in Fish Tissue - Total Impaired Size by Water Type:

Cycle

TMDL

6.14

Sources:

Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: O02R-03-HG Beaverdam Creek

Cause Location: This segment extends from the Tennessee state line upstream to its confluence with the South Fork Holston River.

City / County: Washington Co. Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

The Virginia Department of Health's level of concern was exceeded for Mercury in one fish tissue sample and the Department of Environmental Quality's screening value for Mercury was exceeded in an additional sample.

Cause Assessment Unit / Water Name / Location Desc. Category	Cause Name	Cycle TMDL First Dev. Listed Priority	Water Size
VAS-O02R_BVD01A00 / Beaverdam Creek / Beaverdam Creek 5A Memainstem from Tennessee line upstream to its confluence with South Fork Holston River in Damascus, WQS Section 6, DGIF iii (TH06).	ercury in Fish Tissue	2010 L	2.01
Beaverdam Creek Fish Consumption	Estuary (Sg. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size	(1 ,	(10.00)	2.01

Sources:

Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: O02R-05-BAC **Whitetop Laurel Creek**

Cause Location: Mainstern from Pennington Branch confluence upstream of Konnarock, downstream to the Green Cove Creek

confluence.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6CWLC011.55 had a 17% exceedance of the E. coli water quality standard.

Cycle **TMDL** First Dev. Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name Escherichia coli (E. coli) 2012 3.80

VAS-O02R_WLC01A00 / Whitetop Laurel Creek / South of Straight Mountain, the mainstem from Little Laurel Creek confluence upstream of Konnarock, downstream to the Green Cove Creek

confluence. Section 6, DGIF ii (TH04).

Whitetop Laurel Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

M

3.80

Sources:

Rural (Residential Areas) **Unrestricted Cattle Access**

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Tennessee and Big Sandy River Basins

Cause Group Code: 003R-01-BAC Middle Fork Holston River and Tributaries

Cause Location: This segment extends from the headwaters downstream to Chilhowie and includes from the Dulton Branch confluence at Groseclose downstream to the Snavely Branch confluence and also includes Dulton Branch, a Middle

Fork Holston River headwaters tributary originating on Glade Mountain and confluencing at Groseclose.

City / County: Smyth Co. Washington Co. Wythe Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station, 6CMFH053.36 had a 58% exceedance of the E. coli water quality standard, 6CMFH045.83, had a 22% exceedance and an additional station at 6CMFH040.67 had a 85% exceedance. Station 6CMFH033.40 had a 45% exceedance and 6CMFH013.21 had a 30% exceedance. Station 6CMFH055.88 had a 67% exceedance and station 6CXDY000.17 had a 66% exceedance. Station 6CDUT000.14 had a 17% exceedance. VAS-O05R_MFH03A00 was delisted in 2012 and relisted in 2014.

	Cause	;		Cycle First	TMDL Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ry Cause Name		Listed	Priority	Size
VAS-O03R_DUT01A04 / Dulton Branch / Middle Fork Holston River headwaters tributary originating on Glade Mountain and confluences at Groseclose in WQS Section 5, DGIF vi (TH08).	4A	Escherichia coli (E. coli)		2020	М	3.31
VAS-O03R_MFH01A00 / Middle Fork Holston River / From Marion raw water intake, near Mt Carmel, downstream to Hungry Mother Creek confluence, including Town of Marion, section 5 (TH10).	4A	Escherichia coli (E. coli)		2010	M	5.50
VAS-O03R_MFH02A00 / Middle Fork Holston River / From Marion raw water intake, 45.83, through Atkins to the Snavely Branch confluence, WQS Section 5c, DGIF vi (TH08/10).	4A	Escherichia coli (E. coli)		2010	M	5.15
VAS-O03R_MFH04A98 / Middle Fork Holston River / From Dutton Branch confluence at Groseclose downstream to the at the Snavely Branch confluence, WQS Section 5, DGIF vi (TH08).	4A	Escherichia coli (E. coli)		2014	M	4.25
VAS-O03R_MFH05A04 / Middle Fork Holston River / Mainstem headwaters upstream of Dutton Branch confluence at Groseclose, WQS Section 5, DGIF vi; originates in Kinser Valley in Wythe County (TH08).	4A ,	Escherichia coli (E. coli)		2010	М	3.42
VAS-O04R_MFH01A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Hungry Mother Creek confluence downstream to Sulfur Spring Creek confluence, section 5 (TH12).	4A	Escherichia coli (E. coli)		2004	M	12.59
VAS-O05R_MFH03A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from PWS segment upstream to Edmondson Dam, WQS Section 5 (TH14).	4A	Escherichia coli (E. coli)		2006	M	3.87
VAS-O05R_MFH04A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Sulphur Spring Creek downstream to Rt. 91 bridge, WQS Section 5 (TH13).	4A	Escherichia coli (E. coli)		2020	М	9.19
$VAS\text{-}O05R_XDY01A08 \ / \ Middle \ Fork \ Holston \ tributary \ / \ Enters \ at \ SR \ 803 \ crossing \ near \ the \ USGS \ gauging \ station, \ WQS \ Section \ 5 \ (TH13).$	4A	Escherichia coli (E. coli)		2008	M	0.88
Middle Fork Holston River and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Im	npaired	Size by Water Type:	(= 1=3)	(- 10	-/	48.16

Tennessee and Big Sandy River Basins

_	Cause	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O03R_MFH01A00 / Middle Fork Holston River / From Marion raw water intake, near Mt Carmel, downstream to Hungry Mother Creek confluence, including Town of Marion, section 5 (TH10).	4A	Fecal Coliform		2002	М	5.50
VAS-O03R_MFH02A00 / Middle Fork Holston River / From Marion raw water intake, 45.83, through Atkins to the Snavely Branch confluence, WQS Section 5c, DGIF vi (TH08/10).	4A	Fecal Coliform		2002	M	5.15
VAS-O03R_MFH04A98 / Middle Fork Holston River / From Dutton Branch confluence at Groseclose downstream to the at the Snavely Branch confluence, WQS Section 5, DGIF vi (TH08).	4A	Fecal Coliform		2002	M	4.25
VAS-O05R_MFH04A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Sulphur Spring Creek downstream to Rt. 91 bridge, WQS Section 5 (TH13).	4A	Fecal Coliform		2002	M	9.19
VAS-O05R_MFH05A04 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Edmondson Dam upstream to Rt. 91 bridge, downstream to Rt. 91 bridge confluence, WQS Section 5a (TH13).	4A	Fecal Coliform		2006	М	3.80
Middle Fork Holston River and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Fecal Coliform - Total Im	paired	d Size by Water Type	, ,	()	-,	27.89

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: 003R-01-BEN Middle Fork Holston River

Cause Location: This segment includes the Middle Fork Holston River from the headwaters downstream to the Dutton Branch

confluence.

City / County: Smyth Co. Wythe Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Station 6CMFH055.88 was impaired based on the VSCI scores.

Cycle **TMDL** First Dev. Cause Water Category Cause Name Priority Listed Size Assessment Unit / Water Name / Location Desc.

Benthic Macroinvertebrates

Bioassessments

2010

Н

3 42

3.42

VAS-O03R_MFH05A04 / Middle Fork Holston River / Mainstem headwaters upstream of Dutton Branch confluence at Groseclose, WQS Section 5, DGIF vi; originates in Kinser Valley in Wythe County

(TH08).

Middle Fork Holston River **Estuary** Reservoir River (Acres) (Sq. Miles) (Miles) **Aquatic Life**

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Grazing in Riparian or Shoreline Zones

Unrestricted Cattle Access

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Tennessee and Big Sandy River Basins

Cause Group Code: 003R-02-BAC Bear Creek

Cause Location: Middle Fork Holston River tributary, west of Atkins, parallel to Route 622.

City / County: Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

AWQM station at 6CBER000.17 had a 50% exceedance of the E. coli water quality standard.

Cause Cycle TMDL
First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-003R_BER01A02 / Bear Creek & tributaries / Middle Fork 4A Escherichia coli (E. coli) 2010 M 6.51

Holson River tributary flows south, west of Atkins, WQS Section 5c

(TH09).

 Bear Creek
 Estuary
 Reservoir (Sq. Miles)
 River (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 6.51

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: 003R-03-BAC Staley Creek

Cause Location: This segment is a Middle Fork Holston River tributary, parallel to Route 16, south of Marion to the National Forest

border.

City / County: Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

AWQM station at 6CSTA000.05 has a 64% exceedance of the E. coli water quality standard.

Escherichia coli (E. coli) - Total Im	paire	d Size by Water Type:				8.04
Staley Creek Recreation			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
VAS-O03R_STA02A04 / Staley Creek / Headwaters in western Currin Valley, in WQS Section 5, DGIF iii (TH10).	4A	Escherichia coli (E. coli)		2020	M	1.45
VAS-O03R_STA01B10 / Staley Creek / Middle Fork Holston River tributary on the west side of Marion, upstream to I 81, WQS Section 5, DGIF vi (TH10).	4A	Escherichia coli (E. coli)		2010	M	1.01
VAS-O03R_STA01A02 / Staley Creek / Middle Fork Holston River tributary from I 81 upstream to National Forest just north of Rocky Hollow, including east Currin Valley, WQS Section 5, DGIF vi (TH10).	4A	Escherichia coli (E. coli)		2010	M	5.58
_	Cause atego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O04L-01-HG Hungry Mother Lake

Cause Location: This segment includes Hungry Mother Lake from its headwaters to the dam.

City / County: Smyth Co.
Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Mercury exceeded DEQ's screening value in four fish samples at station 6CHUN005.24

Cause First Dev.
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority

VAS-004L_HUN01A02 / Hungry Mother Lake / Man made reservoir in Hungry Mother State Park in Smyth County, WQS Section 5b (TH11).

Hungry Mother Lake

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 103.23

Mercury in Fish Tissue

Cycle

2010

TMDL

Water

Size 103.23

Sources:

Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: 004R-01-BAC Hungry Mother Creek

Cause Location: This segment extends from the reservoir downstream to the Middle Fork Holston River confluence.

City / County: Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Station 6CHUN001.34 had a 42% exceedance of the E.coli water quality standard.

First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size 4.83 VAS-O04R_HUN02A02 / Hungry Mother Creek / Hungry Mother 2006 Escherichia coli (E. coli) Μ Creek downstream from dam to Middle Fork Holston River west of Marion, WQS Section 5 (TH11). **Hungry Mother Creek** Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation Escherichia coli (E. coli) - Total Impaired Size by Water Type: 4.83

Cycle

TMDL

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: 004R-03-BAC Laurel Springs Creek

Cause Location: This segment flows north from Adwolf to the Middle Fork Holston River.

City / County: Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station, 6CLRL000.35, had a 50% exceedance of the E.coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name	Fii	cle TMDL rst Dev. ted Priority	Water Size
VAS-O04R_LRL01A04 / Laurel Springs Creek / Flows north from 4A Escherichia Adwolf to Middle Fork Holston River, WQS Section 5 (TH12).	coli (E. coli) 20	06 M	2.12
Laurel Springs Creek Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Wa	iter Type:		2.12

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: 004R-04-BAC Walker Creek

Cause Location: This segment flows from the headwaters downstream to the Middle Fork Holston River near the intersection of route

659 and route 645.

City / County: Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station, 6CWAL000.09, had a 66% exceedance of the E.coli water quality standard.

Cycle **TMDL** Dev. Cause First Water Priority Listed Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-O04R_WAL01A02 / Walker Creek & tributaries / A Middle Escherichia coli (E. coli) 2006 Μ 13.52 Fork Holston River tributary from north of Little Brushy Mountain, WQS Section 5 (TH12). Walker Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

13.52

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O04R-05-BAC Sulphur Spring Branch and Tributaries

Cause Location: This segment is a Middle Fork Holston River tributary north of Chilhowie that runs parallel to Route 107 to the

intersection with Route 617.

City / County: Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CSUL000.09 has a 75% exceedance of the E. coli water quality standard.

Cycle **TMDL** Dev. First Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name VAS-O04R_SUL01A12 / Sulphur Spring Creek and tributaries / Escherichia coli (E. coli) 2012 Μ 11.28 Middle Fork Holston River tributary that drains Lyons Gap area of Little Brushy Mountain northwest of Chilhowie (TH12). Sulphur Spring Branch and Tributaries **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation Escherichia coli (E. coli) - Total Impaired Size by Water Type: 11.28

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-01-BAC Three Creeks

Cause Location: This segment includes the following tributaries to Middle Fork Holston River: Hutton, Hall, Byers, and their tributaries (Cedar Creek, West Fork Cedar Creek, East Fork Cedar Creek, Plum Creek, unnamed tributary to

Hutton Creek, unnamed tributary to Hall Creek and Tattle Branch).

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

Cvcle TMDL

Station 6CBYS000.08 had a 92% exceedance of the E.coli water quality standard and station 6CCED000.04 had a 100% exceedance of the E.coli standard. An additional station at 6CXDY000.17 had a 66% exceedance of the E. coli water quality standard. Station 6CHT0000.24 had an 75% exceedance of the E. coli standard.

Assessment Unit / Water Name / Location Desc.	Cause	e ory Cause Name		First Listed	Dev. Priority	Water Size
VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork Holston River confluence, WQS Section 5 (TH13).	4A	Escherichia coli (E. coli)		1996	L	0.49
VAS-O05R_CED01A94 / Cedar Creek / From confluence of Ea Fork Cedar Creek and West Fork Cedar Creek through Cedarville Middle Fork Holston confluence, WQS Section 5 (TH14).		Escherichia coli (E. coli)		2006	L	5.61
VAS-O05R_HAL01A94 / Hall Creek / Mainstem from headwate north of Emory through Emory and Henry College to Byers Creek confluence, WQS Section 5 (TH13).	rs 4A	Escherichia coli (E. coli)		2020	L	6.91
VAS-O05R_HTO01A94 / Hutton Creek / Headwaters east of GI Spring downstream to Middle Fork Holston River confluence and tributaries, WQS Section 5 (TH13).	ade 4A	Escherichia coli (E. coli)		2006	L	5.15
VAS-O05R_PLU01A02 / Plum Creek / Headwaters at Jamison Gap downstream to Hutton Creek confluence, WQS Section 5 (The Confluence)	4A 113)	Escherichia coli (E. coli)		2020	L	2.32
VAS-O05R_TAT01A02 / Tattle Branch / Mainstem south of Old Glade Spring from headwaters to Byers Creek confluence, WQS Section 5 (TH13).	4A	Escherichia coli (E. coli)		2020	L	2.77
. ,						
Three Creeks			Estuary	Res	ervoir	River
			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Three Creeks	I Impaired	d Size by Water Type:				
Three Creeks Recreation	Cause			Cycle First		(Miles)
Three Creeks Recreation Escherichia coli (E. coli) - Tota	Cause	e		Cycle First	TMDL Dev.	(Miles) 23.25 Water
Three Creeks Recreation Escherichia coli (E. coli) - Tota Assessment Unit / Water Name / Location Desc. VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork	Cause Catego 4A	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	(Miles) 23.25 Water Size
Three Creeks Recreation Escherichia coli (E. coli) - Tota Assessment Unit / Water Name / Location Desc. VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork Holston River confluence, WQS Section 5 (TH13). VAS-O05R_CED01A94 / Cedar Creek / From confluence of Ea Fork Cedar Creek and West Fork Cedar Creek through Cedarville	Cause Catego 4A st 4A to	e ory Cause Name Fecal Coliform		Cycle First Listed 2004	TMDL Dev. Priority	Water Size 0.49
Three Creeks Recreation Escherichia coli (E. coli) - Tota Assessment Unit / Water Name / Location Desc. VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork Holston River confluence, WQS Section 5 (TH13). VAS-O05R_CED01A94 / Cedar Creek / From confluence of Ea Fork Cedar Creek and West Fork Cedar Creek through Cedarville Middle Fork Holston confluence, WQS Section 5 (TH14). VAS-O05R_CWF01A02 / West Fork Cedar Creek / Cedar Creek	Cause Catego 4A st 4A to	e ory Cause Name Fecal Coliform Fecal Coliform		Cycle First Listed 2004	TMDL Dev. Priority L	(Miles) 23.25 Water Size 0.49 5.61

Tennessee and Big Sandy River Basins						
north of Emory through Emory and Henry College to Byers Creek confluence, WQS Section 5 (TH13).						
VAS-O05R_HTO01A94 / Hutton Creek / Headwaters east of Glade Spring downstream to Middle Fork Holston River confluence and tributaries, WQS Section 5 (TH13).	4A	Fecal Coliform		2002	L	5.15
VAS-O05R_PLU01A02 / Plum Creek / Headwaters at Jamison Gap downstream to Hutton Creek confluence, WQS Section 5 (TH13)	4A	Fecal Coliform		2002	L	2.32
VAS-O05R_TAT01A02 / Tattle Branch / Mainstem south of Old Glade Spring from headwaters to Byers Creek confluence, WQS Section 5 (TH13).	4A	Fecal Coliform		2002	L	2.77
VAS-O05R_XCD01A02 / Tributary to Hutton Creek / Headwaters near Litz through Glade Spring down to Middle Fork Holston River confluence and tributaries, WQS Section 5 (TH13).	4A	Fecal Coliform		2002	L	4.11
VAS-005R_XCG01A02 / Hall Creek tributary / Mainstem from headwaters to Hall Creek confluence west of Patrick Henry High School, section 5 (TH13).	4A	Fecal Coliform		2002	L	1.71
Three Creeks			Estuary	Rese		River
Recreation			(Sq. Miles)	(Acr	es)	(Miles)
Fecal Coliform - Total Imp	oaire	d Size by Water Type:				31.71
Sources:						

Animal Feeding Operations (NPS)
Unrestricted Cattle Access

Crop Production (Crop Land or Dry Land)

Grazing in Riparian or Shoreline Zones

Livestock (Grazing or Feeding Operations)

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Tennessee and Big Sandy River Basins

Cause Group Code: O05R-01-BEN Three Creeks

Cause Location: This segment includes the following tributaries to Middle Fork Holston River: Hall and surrounding tributaries (Byers

Creek, Cedar Creek, West Fork Cedar Creek, East Fork Cedar Creek, Plum Creek, unnamed tributary to Hutton

Creek, unnamed tributary to Hall Creek, Tattle Branch).

City / County: Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentati

Sedimentation/Siltation /

Cycle TMDL

The following biological stations were found to be impaired based on their VSCI scores being lower than 60: 6CTAT000.50, 6CCED000.04, and 6CBYS000.08.

	Cause)	First	Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ry Cause Name	Listed	Priority	Size
VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork Holston River confluence, WQS Section 5 (TH13).	4A	Benthic Macroinvertebrates Bioassessments	2004	Н	0.49
VAS-O05R_CED01A94 / Cedar Creek / From confluence of East Fork Cedar Creek and West Fork Cedar Creek through Cedarville t Middle Fork Holston confluence, WQS Section 5 (TH14).		Benthic Macroinvertebrates Bioassessments	2004	Н	5.61
VAS-O05R_CWF01A02 / West Fork Cedar Creek / Cedar Creek tributary west of Meadowview, section 5 (TH14).	4A	Benthic Macroinvertebrates Bioassessments	2004	Н	1.54
VAS-O05R_ECE01A02 / Cedar Creek / Cedar Creek tributary through Meadowview, section 5 (TH4).	4A	Benthic Macroinvertebrates Bioassessments	2004	Н	1.10
VAS-O05R_HAL01A94 / Hall Creek / Mainstem from headwaters north of Emory through Emory and Henry College to Byers Creek confluence, WQS Section 5 (TH13).	s 4A	Benthic Macroinvertebrates Bioassessments	2004	Н	6.91
VAS-O05R_PLU01A02 / Plum Creek / Headwaters at Jamison Gap downstream to Hutton Creek confluence, WQS Section 5 (TH1	4A 13)	Benthic Macroinvertebrates Bioassessments	2004	Н	2.32
VAS-O05R_TAT01A02 / Tattle Branch / Mainstem south of Old Glade Spring from headwaters to Byers Creek confluence, WQS Section 5 (TH13).	4A	Benthic Macroinvertebrates Bioassessments	2004	Н	2.77
VAS-O05R_XCD01A02 / Tributary to Hutton Creek / Headwaters near Litz through Glade Spring down to Middle Fork Holston River confluence and tributaries, WQS Section 5 (TH13).	s 4A	Benthic Macroinvertebrates Bioassessments	2004	Н	4.11
VAS-O05R_XCG01A02 / Hall Creek tributary / Mainstem from headwaters to Hall Creek confluence west of Patrick Henry High School, section 5 (TH13).	4A	Benthic Macroinvertebrates Bioassessments	2004	Н	1.71

Three Creeks	Estuary	Reservoir	River
Aquatic Life	(Sq. Miles)	(Acres)	(Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			26.56

Sources:

Animal Feeding Operations (Crop Production (Crop Land or Dry Land)

Crop Production (Crop Land Grazing in Riparian or Shoreline Zones

Crop Production (Crop Land Grazing in Riparian or Shoreline Zones

Crop Production (Crop Land Grazing in Riparian or Shoreline Zones)

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-02-BAC Greenway Creek

Cause Location: This segment includes the mainstem from the headwaters downstream to the confluence with the Middle Fork

Holston River.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station 6CGRW000.09 had a 83% exceedance of the E.coli water quality standard.

	Cause		First	Dev.	Water
Assessment Unit / Water Name / Location Desc.	Category Cause Name		Listed	Priority	Size
VAS-O05R_GRW01A02 / Greenway Creek / Tributary to Middle Fork Holston River at Neff, west of Meadowview (TH14)	4A Escherichia coli (E. coli)		2008	L	5.02
Greenway Creek		Estuary	Rese	ervoir	River
Recreation		(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total	Impaired Size by Water Type:				5.02

Cycle TMDL

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-02-BEN Greenway Creek

Cause Location: This segment includes the mainstem from the headwaters downstream to the confluence with the Middle Fork

Holston River.

City / County: Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological station located at 6CGRW002.31 was impaired based on VSCI score of 55.80 in 2008.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_GRW01A02 / Greenway Creek / Tributary to Middle Fork Holston River at Neff, west of Meadowview (TH14) 5A Benthic Macroinvert Bioassessments	ebrates	2010	Н	5.02
Greenway Creek Aguatic Life	Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Ty	pe:			5.02

Sources:

Grazing in Riparian or Shoreline Zones

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-05-BEN Middle Fork Holston River

Cause Location: This segment includes the mainstem Middle Fork Holston River from the Sulphur Springs Creek confluence to

Edmondson Dam.

Washington Co. City / County: Smyth Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Biological stations, 6CMFH011.31 and 6CMFH023.41 were impaired based on the VSCI scores. Station 6CMFH026.00 was

Cycle

TMDL

impaired based on VSCI scores of 52.09 and 63.80 in 2018.

Assessment Unit / Water Name / Location Desc.		e ory Cause Name		First Listed	Dev. Priority	Water Size
VAS-O05R_MFH04A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Sulphur Spring Creek downstream Rt. 91 bridge, WQS Section 5 (TH13).		Benthic Macroinvertebrat Bioassessments	es	2008	L	9.19
VAS-O05R_MFH05A04 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Edmondson Dam upstream to Rt. bridge, downstream to Rt. 91 bridge confluence, WQS Section 5a (TH13).	91	Benthic Macroinvertebrat Bioassessments	es	2006	L	3.80
Middle Fork Holston River			Estuary (Sq. Miles)		ervoir :res)	River (Miles)

(Sq. Miles) (Acres) **Aquatic Life** Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

12.99

Sources:

Unrestricted Cattle Access Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O06L-01-HG South Holston Reservoir

Cause Location: The TVA dam is located in Tennessee and Virginia. It is operated to generate hydroelectric power, flood control

and provide recreational opportunities.

City / County: Washington Co.
Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Four fish tissue samples exceeded the Virginia Department of Health's level of concern for Mercury and 7 samples exceeded

the Department of Environmental Quality's screening value for Mercury.

Cycle TMDL
Cause
Cause
Assessment Unit / Water Name / Location Desc.
Category Cause Name
Cycle TMDL
First Dev. Water
Category Cause Name
Listed Priority Size
As-O06L SFH01A00 / South Holston Reservoir / The TVA dam 5A Mercury in Fish Tissue
2010 L ######

VAS-O06L_SFH01A00 / South Holston Reservoir / The TVA dam is located in Tennessee; the 7580 acre reservoir is owned and operated by the Tennessee Valley Authority to generate hydroelectric power, flood control and provide recreational opportunities, WQS Section 2. Acreage given is Virginia only.

South Holston Reservoir

Estuary Reservoir River

Fish Consumption (Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 1,699.97

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O06L-01-PCB South Holston Reservoir

Cause Location: The TVA dam is located in Tennessee and Virginia. It is operated to generate hydroelectric power, flood control

and provide recreational opportunities.

City / County: Washington Co.
Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A

Two fish tissue samples from channel catfish exceeded the Department of Environmental Quality's screening value for

polychlorinated biphenyls (PCBs).

Cycle TMDL

Cause First Dev. Water

Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

5A

VAS-O06L_SFH01A00 / South Holston Reservoir / The TVA dam is located in Tennessee; the 7580 acre reservoir is owned and operated by the Tennessee Valley Authority to generate hydroelectric power, flood control and provide recreational opportunities, WQS Section 2. Acreage given is Virginia only.

South Holston Reservoir

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

PCBs in Fish Tissue - Total Impaired Size by Water Type: 1,699.97

PCBs in Fish Tissue

2010

######

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-01-BAC Wolf Creek

Cause Location: This segment extends from the upper mainstem at Route 11 downstream to the lake backwaters and also includes

the lower mainstem from the Town Creek confluence through the Great Knobs, downstream to the Route $75\,$

bridge. Spoon Gap Creek, a Wolf Creek tributary near Green Spring.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

Cvcle TMDL

The AWQM station, 6CWLF001.18, had a 66% exceedance of the E.coli water quality standard, 6CWLF004.10 had a 25% exceedance, and station 6CWLF007.55 had a 55% exceedance of the E.coli water quality standard. Station 6CSPO001.45 had a 15% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Caus Catego	e ory Cause Name		First Listed	Dev. Priority	Water Size
VAS-O06R_SPO01A16 / Spoon Gap Creek / A Wolf Creek tributary near Green Spring, Section 3 (TH16).	4A	Escherichia coli (E. coli)		2016	М	2.66
VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from To Creek confluence through the Great Knobs, downstream to Rt. 75 bridge, WQS Section 3 (TH16).	wn 4A	Escherichia coli (E. coli)		2008	М	3.33
VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holsto Lake backwaters (TH16).		Escherichia coli (E. coli)		2010	М	0.41
VAS-O06R_WLF02B08 / Wolf Creek / Upper mainstem from th Town Creek confluence past Stone Mill, upstream to Rt. 11 in wes Abingdon (TH16).		Escherichia coli (E. coli)		2010	М	2.36
VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring, WQS Section 3 (TH16).	e 4A	Escherichia coli (E. coli)		2010	М	2.93
Wolf Creek			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	cres)	(Miles)
Fb	1	-l O: \N - t T				44.00
Escherichia coli (E. coli) - Tota	Impaire	d Size by Water Type:				11.69
Assessment Unit / Water Name / Location Desc.	Caus			Cycle First Listed	TMDL Dev. Priority	11.69 Water Size
· · · · · · · · · · · · · · · · · · ·	Caus Catego	e ory Cause Name		First	Dev.	Water
Assessment Unit / Water Name / Location Desc. VAS-006R_WLF01A98 / Wolf Creek / Lower mainstem from To Creek confluence through the Great Knobs, downstream to Rt. 75	Caus Catego wn 4A 4A	e ory Cause Name		First Listed	Dev. Priority	Water Size
Assessment Unit / Water Name / Location Desc. VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from To Creek confluence through the Great Knobs, downstream to Rt. 75 bridge, WQS Section 3 (TH16). VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holstone	Caus Catego wn 4A 4A n	e ory Cause Name Fecal Coliform		First Listed 2004	Dev. Priority M	Water Size 3.33
Assessment Unit / Water Name / Location Desc. VAS-006R_WLF01A98 / Wolf Creek / Lower mainstem from To Creek confluence through the Great Knobs, downstream to Rt. 75 bridge, WQS Section 3 (TH16). VAS-006R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holsto Lake backwaters (TH16). VAS-006R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring,	Caus Catego wn 4A 4A n	e Dry Cause Name Fecal Coliform Fecal Coliform	Estuary	First Listed 2004 2006 2004	Dev. Priority M	Water Size 3.33
Assessment Unit / Water Name / Location Desc. VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from To Creek confluence through the Great Knobs, downstream to Rt. 75 bridge, WQS Section 3 (TH16). VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holsto Lake backwaters (TH16). VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring, WQS Section 3 (TH16). Wolf Creek Recreation	Caus Catego wn 4A 4A n 4A	e Dry Cause Name Fecal Coliform Fecal Coliform	Estuary (Sq. Miles)	First Listed 2004 2006 2004	Dev. Priority M M	Water Size 3.33 0.41 2.93

Tennessee and Big Sandy River Basins

Sources:

Livestock (Grazing or Feeding Operations)

Rural (Residential Areas)

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: 006R-01-BEN Wolf Creek

Cause Location: This segment extends from the Town Creek confluence downstream to the lake backwaters.

City / County: Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

The biological stations located at 6CWLF004.10, 6CWFC005.95 and 6CWLF006.43 are impaired based on VSCI scores.

Assessment Unit / Water Name / Location Desc. Ca VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from Town	atego 4A	ry Cause Name Benthic Macroinvertebra	tes	Listed 2002	Priority H	Size 3.33
Creek confluence through the Great Knobs, downstream to Rt. 75 bridge, WQS Section 3 (TH16).	., .	Bioassessments		2002		0.00
VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holston Lake backwaters (TH16).	4A	Benthic Macroinvertebra Bioassessments	tes	2006	Н	0.41
VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring, WQS Section 3 (TH16).	4A	Benthic Macroinvertebra Bioassessments	tes	2006	Н	2.93
Wolf Creek			Estuary	Rese	ervoir	River
Aquatic Life			(Sq. Miles)	(Ac	res)	(Miles)
Benthic Macroinvertebrates Bioassessments - Total Imp	oaired	d Size by Water Type:				6.67

Sources:

Grazing in Riparian or Shoreline Zones

Rural (Residential Areas)

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-01-PCB Wolf Creek

Cause Location: This segment extends from the Town Creek confluence downstream to the lake backwaters.

City / County: Washington Co. Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A

This segment was listed based on the Virginia Department of Health's fish consumption advisory for polychlorinated biphenyls.

Assessment Unit / Water Name / Location Desc.	Caus Catego	e rry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from Town Creek confluence through the Great Knobs, downstream to Rt. 75 bridge, WQS Section 3 (TH16).	ր 5A	PCBs in Fish Tissue		2006	L	3.33
VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holston Lake backwaters (TH16).	5A	PCBs in Fish Tissue		2006	L	0.41
VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring, WQS Section 3 (TH16).	5A	PCBs in Fish Tissue		2006	L	2.93
Wolf Creek			Estuary	Res	ervoir	River
Fish Consumption			(Sq. Miles)	(Ac	res)	(Miles)
PCBs in Fish Tissue - Total Im	npaire	d Size by Water Type:				6.67

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-02-BAC Fifteen Mile Creek

Cause Location: This segment extends from the headwaters downstream to the confluence with the South Holston Reservoir.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

Station 6CFIF000.96 had a 54% exceedance of the E.coli water quality standard and station 6CFIF006.16 had a 41% exceedance of the E. coli water quality standard.

Cycle TMDI

Fifteen Mile Creek	VAS-O06R_FIF02A08 / Fifteenmile Creek / From Lee Highway 5A Escherichia coli near I81 Exit 19, to beginning of PWS waters just north of Watauga Road, WQS Section 3 (TH15).	i (E. coli)	2008	M 3.94
Little River	, , ,	Estuary	Reservoi	
Country Reservoir River				
Recreation Estuary Reservoir River (Sq. Miles) (Acres) (Miles)	Country			
Recreation (Fig. 1)	Recreation	r Type:	(1.0.00)	(

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-03-BAC Spring Creek

Cause Location: This segment extends from the South Holston Reservoir backwaters upstream to the headwaters.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6CSPR001.18 had a 42% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
Assessment Unit / Water Name / Location Desc. Category Cause Name AS-O06R_SPR01A02 / Spring Creek / Spring Creek from South 5A Escherichia coli (E. coli) olston Lake backwaters upstream, WQS Section 3, DGIF vi (TH18). Spring Creek			2008	М	4.43
Spring Creek		Estuary	Res	ervoir	River
Recreation		(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total I	mpaired Size by Water Type:				4.43

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-04-BAC **Town Creek**

Cause Location: This segment includes the mainstem from the headwaters, through the Town of Abingdon to the Wolf Creek

confluence.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CTOW000.58 had a 42% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name VAS-O06R_TOW01A00 / Town Creek / Mainstem from the Escherichia coli (E. coli) 2012 L 4.75 headwaters, flows from northeast through Town of Abingdon, southwest to the Wolf Creek confluence, WQS Section 3 (TH16).

Town Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 4.75

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Sources:

Rural (Residential Areas) **Unrestricted Cattle Access**

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-06-BAC Cox Mill Creek

Cause Location: A South Holston Lake tributary.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

DEQ special study monitoring station located at 6CMLC000.65 had a 33% exceedance of the E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size		
VAS-O06R_CXC01A18 / Cox Mill Creek / South Holston Lake tributary, WQS Section 3 (TH17).	5A Escherichia coli (E. coli)		2018	L	3.51		
Cox Mill Creek		Estuary	Rese	ervoir	River		
Recreation		(Sq. Miles)	(Ac	res)	(Miles)		
Escherichia coli (E. coli) - Total Impaired Size by Water Type:							

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: 007R-01-BAC Beaver Creek and Tributaries

Cause Location: This segment includes the headwaters of Beaver Creek downstream to the Tennessee political boundary. It also

includes the headwaters of Little Creek, including Mumpower Creek, downstream to the Tennessee political

boundary in the City of Bristol.

City / County: Bristol City Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM and TMDL stations revealed a 50% exceedance of the E.coli water quality standard at 6CBEV015.27, a 16% exceedance at 6CMUM000.65, a 100% exceedance at 6CXDR000.34 and a 91% exceedance at 6CLTL000.26.

Fecal Coliform - Total II	npaire	d Size by Water Type:				2.29
Beaver Creek and Tributaries Recreation			Estuary (Sq. Miles)			River (Miles)
VAS-007R_LTL01A96 / Little Creek / Headwaters, downstream to the Tennessee state line in the City of Bristol, WQS Section 4 (TH2		Fecal Coliform		2004	L	2.29
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
Escherichia coli (E. coli) - Total II	mpaire	d Size by Water Type:		Listed Priority 2006 L 2006 L 2006 L 2006 L 2006 L 2006 L Cycle TMDL First Dev. Listed Priority 2004 L Reservoir	23.03	
Beaver Creek and Tributaries Recreation			Estuary (Sq. Miles)			River (Miles)
VAS-007R_XDR01A06 / Little Creek / Headwaters west of Haskell, downstream to the confluence of Mumpower Creek parallel to Campground Road in WQS Section 4 (TH21).	4A	Escherichia coli (E. coli)	2006	L	2.80
VAS-007R_MUM01A06 / Mumpower Creek / A tributary to Little Creek parallel SR 640, north of Bristol City limits, WQS Section 4 (TH21).	4A	Escherichia coli (E. coli)	2006	L	2.90
VAS-007R_LTL01A96 $/$ Little Creek $/$ Headwaters, downstream to the Tennessee state line in the City of Bristol, WQS Section 4 (TH2)		Escherichia coli (E. coli)	2006	L	2.29
VAS-007R_BEV02A94 / Beaver Creek / From headwaters of Beaver Creek near Ratcliff Knob downstream to Beaver Creek flood control dam in Sugar Hollow Park, section 4, DGIF vi (TH21).	4A	Escherichia coli (E. coli)	2006	L	7.77
VAS-O07R_BEV01A94 / Beaver Creek / Mainstem from Beaver Creek dam (nonfunctional) thru the City of Bristol, downstream to Tennessee state line including tributaries, Section 4 (TH21).	4A	Escherichia coli (E. coli)	2006	L	7.27
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name				Water Size

Sources:

Rural (Residential Areas) Unrestricted Cattle Access Wastes from Pets

Tennessee and Big Sandy River Basins

Cause Group Code: 007R-01-BEN Beaver Creek

Cause Location: This segment includes the mainstem from the headwaters of Beaver Creek downstream to the Tennessee political

boundary including its tributaries.

City / County: Bristol City Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

The biological stations located at 6CBEV015.27 and 6CBEV023.99 was found to be impaired based on VSCI scores of 47.5

and 54.9 and 55.2 and 65.3 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O07R_BEV01A94 / Beaver Creek / Mainstem from Beaver Creek dam (nonfunctional) thru the City of Bristol, downstream to Tennessee state line including tributaries, Section 4 (TH21).	4A	Benthic Macroinvertebra Bioassessments	tes	1998	L	7.27
VAS-007R_BEV02A94 / Beaver Creek / From headwaters of Beaver Creek near Ratcliff Knob downstream to Beaver Creek flood control dam in Sugar Hollow Park, section 4, DGIF vi (TH21).	AA d	Benthic Macroinvertebra Bioassessments	tes	1998	L	7.77
Beaver Creek Aquatic Life			Estuary (Sq. Miles)		ervoir cres)	River (Miles)

Sources:

Crop Production (Crop Land	Rural (Residential Areas)	Unrestricted Cattle Access	Urban Runoff/Storm Sewers
or Dry Land)			

15.04

Tennessee and Big Sandy River Basins

Cause Group Code: 007R-01-PCB Beaver Creek and Little Creek

Cause Location: This segment includes the headwaters of Beaver Creek downstream to the Tennessee political boundary and Little

Creek from the headwaters downstream to the Tennessee political boundary in the City of Bristol.

City / County: Bristol City Washington Co.

Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A

Fish tissue stations (6CBEV015.27 and 6CLTL000.26) found polychlorinated biphenyls (PCB's) in carp and stonerollers above

DEQ's screening value.

PCBs in Fish Tissue - Total Imp	paired	Size by Water Type:				17.33
Beaver Creek and Little Creek Fish Consumption			Estuary (Sq. Miles)		ervoir res)	River (Miles)
VAS-O07R_LTL01A96 / Little Creek / Headwaters, downstream to the Tennessee state line in the City of Bristol, WQS Section 4 (TH21).	5A	PCBs in Fish Tissue		2006	L	2.29
VAS-O07R_BEV02A94 / Beaver Creek / From headwaters of Beaver Creek near Ratcliff Knob downstream to Beaver Creek flood control dam in Sugar Hollow Park, section 4, DGIF vi (TH21).	5A	PCBs in Fish Tissue		2006	L	7.77
VAS-O07R_BEV01A94 / Beaver Creek / Mainstem from Beaver Creek dam (nonfunctional) thru the City of Bristol, downstream to Tennessee state line including tributaries, Section 4 (TH21).	5A	PCBs in Fish Tissue		2006	L	7.27
	Cause atego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Illegal Dumps or Other Inappropriate Waste Disposal

Tennessee and Big Sandy River Basins

Cause Group Code: 007R-04-BAC Sinking Creek

Cause Location: This segment includes the headwaters downstream to the Tennessee state line, east of the City of Bristol.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6CSNK006.68 has a 42% exceedance of the E. coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 3.79 VAS-007R_SNK01A02 / Sinking Creek / Headwaters downstream 5A Escherichia coli (E. coli) 2012 to the Tennessee state line, east of City of Bristol, WQS Section 4, DGIF vi (TH20).

Sinking Creek

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 3.79

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O07R-05-BAC **Stoffel Creek**

Cause Location: This segment is located northwest of the City of Bristol, near the Three Springs community.

City / County: Bristol City Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6CSTO000.86 has a 50% exceedance of the E. coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 5.22 VAS-O07R_STO01A12 / Stoffel Creek & tributaries / Drains the 2012 5A Escherichia coli (E. coli) Three Springs community, northwest of City of Bristol (TH22). Stoffel Creek Estuary Reservoir River

(Sq. Miles) (Acres) (Miles) Recreation 5.22

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Sources:

Rural (Residential Areas) **Unrestricted Cattle Access**

Tennessee and Big Sandy River Basins

Cause Group Code: O08R-01-BAC Boozy Creek

Cause Location: This is a South Fork Holston Lake tributary to Tennessee, parallel to Route 618.

City / County: Scott Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6CBOO002.71 has a 55% exceedance of the E. coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 2.53 VAS-O08R_BOO01A12 / Boozy Creek / South Fork Holston Lake 2012 5A Escherichia coli (E. coli) tributary parallel to the Tennessee state line, from Anderson Cemetery downstream (TH23).

Boozy Creek

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 2.53

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O09R-01-BAC Lick Creek

Cause Location: This segment extends from the Lynn Camp confluence, river mile 4.31, downstream to the North Fork Holston River

confluence.

City / County: Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CLIB000.08 had a 33% exceedance, station 6CLIB001.06 had a 25% exceedance, and station

6CLIB003.65 had a 16% exceedance of the E. coli water quality standard.

Cycle TMDL
Cause
First Dev. Water
Assessment Unit / Water Name / Location Desc.

Category Cause Name

4A Escherichia coli (E. coli)

2006 L 5.73

VAS-O09R_LIB01A02 / Lick Creek / From the Lynn Camp confluence at river mile 4.31, downstream to the North Fork Holston confluence, WQS Section 1 (TH25).

Lick Creek

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 5.73

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O09R-03-BAC North Fork Holston River

Cause Location: This segment includes the mainstem from the headwaters downstream to the Crewey Branch confluence, and from

the Crewey Branch confluence downstream through Riverside to Locust Cove Creek, and the mainstem from the

Lick Branch confluence downstream to the Lick Creek confluence.

City / County: Bland Co. Smyth Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station located at 6CNFH098.47, station 6CNFH127.12 had a 58% exceedance, station 6CNFH113.36 had a 16% exceedance, and station 6CNFH124.62 had a 33% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e rv Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-009R_NFH01A02 / North Fork Holston River / Mainstem from Lick Creek confluence downstream to Crewey Branch confluence, WQS Section 1 (TH26).	4A	Escherichia coli (E. coli)		2010	L	13.77
VAS-O09R_NFH01A98 / North Fork Holston River / Mainstem from Crewey Branch confluence downstream through Riverside to Locust Cove Creek confluence, WQS Section 1 (TH26).	4A	Escherichia coli (E. coli)		2020	L	1.74
VAS-O09R_NFH01B02 / North Fork Holston River / Mainstem from Lick Branch confluence near Bland/Wythe County line downstream to Lick Creek confluence, WQS Section 1 (TH24).	4A	Escherichia coli (E. coli)		2014	L	12.58
VAS-O09R_NFH01C02 / North Fork Holston River / Mainstem from headwaters near Sharon Springs, downstream through Ceres to Lick Branch confluence, WQS Section 1 (TH24).	4A 5,	Escherichia coli (E. coli)		2010	L	12.23
North Fork Holston River Recreation			Estuary (Sq. Miles)		ervoir :res)	River (Miles)
Escherichia coli (E. coli) - Total	Impaired	I Size by Water Type:				40.32
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O09R_NFH01C02 / North Fork Holston River / Mainstem from headwaters near Sharon Springs, downstream through Ceres to Lick Branch confluence, WQS Section 1 (TH24).	4A s,	Fecal Coliform		2006	L	12.23
North Fork Holston River			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Fecal Coliform - Total	Impaired	Size by Water Type:				12.23

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-BAC North Fork Holston River

Cause Location: This segment extends from the Laurel Creek confluence downstream to the confluence of Tumbling Creek. It also

includes the mainstem from the confluence of Big Moccasin Creek downstream to the Tennessee line.

City / County: Scott Co. Smyth Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

AWQM station 6CNFH081.69 had a 17% exceedance, station 6CNFH085.20 had a 42% exceedance, station 6CNFH089.25 had a 16% exceedance, and station 6CNFH008.78 had an 30% exceedance of the E.coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91		2008	L	1.83
VAS-O10R_NFH02A00 / North Fork Holston River / From Laurel 4A Escherichia coli (E. coli) Creek confluence near Broadford, downstream Rt. 91 near Allison Gap, WQS Section 1 (TH29).		2006	L	8.51
VAS-O11R_NFH03A94 / North Fork Holston River / From 4A Escherichia coli (E. coli) confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek in WQS Section 1a (TH31).		2006	L	4.92
VAS-O13R_NFH01A94 / North Fork Holston River / Mainstem 4A Escherichia coli (E. coli) from confluence of Big Moccasin Creek downstream to Tennessee state line, WQS Section 1a (TH45).		2006	L	5.32
North Fork Holston River	Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:				20.58
Cause Assessment Unit / Water Name / Location Desc. Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91 4A Fecal Coliform near Broady Bottom above Saltville to Robertson Branch confluence in WQS, WQS Section 1 (TH29).		2006	L	1.83
VAS-O13R_NFH01A94 / North Fork Holston River / Mainstem 4A Fecal Coliform from confluence of Big Moccasin Creek downstream to Tennessee state line, WQS Section 1a (TH45).		2004	L	5.32
North Fork Holston River Recreation	Estuary (Sq. Miles)		ervoir res)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:		•		7.15

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-HG **North Fork Holston River**

Cause Location: This segment begins in Saltville at the Robertson Branch confluence and extends downstream to the Tennessee

state line.

Washington Co. City / County: Scott Co. Smyth Co.

Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 4A

Mercury (Hg) contamination of the fish tissue prior to 1972 led to a ban on fish consumption by the Virginia Department of Health. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. Station 6CNFH080.43 exceeded the screening value for Hg in the water column and 6CNFH039.18 exceeded the screening values for Hg in sediment and fish tissue.

	Caus		Cycle First	TMDL Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ory Cause Name	Listed	Priority	Size
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91 near Broady Bottom above Saltville to Robertson Branch confluence in WQS, WQS Section 1 (TH29).	4A e	Mercury in Fish Tissue	1994	L	1.83
VAS-O11R_NFH01A00 / North Fork Holston River / Segment from Brumley Creek confluence downstream to Cabin Creek confluence, WQS Section 1a (TH35).		Mercury in Fish Tissue	1994	L	1.87
VAS-O11R_NFH02A94 / North Fork Holston River / From Route 80 crossing at River Bridge community downstream to Brumley Creek confluence, WQS Section 1a (TH33).	4A	Mercury in Fish Tissue	1994	L	6.29
VAS-O11R_NFH02B10 / North Fork Holston River / From Tumbling Creek confluence downstream to Rt. 80 bridge crossing, WQS Section 1a (TH31).	4A	Mercury in Fish Tissue	1994	L	8.52
VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek in WQS Section 1a (TH31).	4A	Mercury in Fish Tissue	1994	L	4.92
VAS-O12R_NFH01B02 / North Fork Holston River / Mainstem near Maces Spring from Livingston Creek confluence downstream to Cove Creek confluence, WQS Section 1a (TH39).	4A 0	Mercury in Fish Tissue	1994	L	4.28
VAS-O12R_NFH01C02 / North Fork Holston River / Mainstem near Mendota from Abrams Creek confluence to Livingston Creek confluence, WQS Section 1a (TH 39).	4A	Mercury in Fish Tissue	1994	L	8.17
VAS-O12R_NFH02A00 / North Fork Holston River / Mainstem from Cabin Creek confluence near Mongle Spring to Little Moccasin Creek confluence at Holston community, WQS Section 1a (TH35).	4A 1	Mercury in Fish Tissue	1994	L	2.84
VAS-O12R_NFH02C04 / North Fork Holston River / Mainstem near Walnut Grove, from Smith Creek confluence at Horseshoe Bend, downstream to Abrams Creek confluence near Stacher Ford, WQS Section 1a (TH37).	4A	Mercury in Fish Tissue	1994	L	10.80
VAS-O12R_NFH03C04 / North Fork Holston River / Mainstem near Roebuck, from Smith Creek confluence at the Holston community upstream to the Little Moccasin Creek confluence at Horseshoe Bend, WQS Section 1a (TH35).	4A	Mercury in Fish Tissue	1994	L	8.43
VAS-O13R_NFH01A94 / North Fork Holston River / Mainstem from confluence of Big Moccasin Creek downstream to Tennessee state line, WQS Section 1a (TH45).	4A	Mercury in Fish Tissue	1994	L	5.32
VAS-O13R_NFH02A94 / North Fork Holston River / Mainstem	4A	Mercury in Fish Tissue	1994	L	18.72
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Tennessee and Big Sandy River Basins

from the confluence of Cove Creek south of Maces Spring, downstream to confluence of Big Moccasin Creek south of Weber City, WQS Section 1a (TH41).

North Fork Holston River

Estuary Reservoir River

Fish Consumption (Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

81.99

Sources:

Industrial Point Source Discharge

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-PCB North Fork Holston River

Cause Location: This segment begins in Saltville at river mile 85.40 and extends to the Route 80 bridge. Historically there has been

an error in the segments that are included in this impairment due to a discrepancy in the VDH website.

City / County: Scott Co. Smyth Co. Washington Co.

Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A

The Virginia Department of Health added polychlorinated biphenyls (PCBs) to the fish consumption ban in 12/13/2004.

Stations 6CNFH059.65 and 6CNFH039.18 revealed PCBs in the sediment.

PCBs in Fish Tissue - Total Im	npaire	d Size by Water Type:				15.27
Fish Consumption			(Sq. Miles)		cres)	(Miles)
North Fork Holston River			Estuary	Rasi	ervoir	River
VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek in WQS Section 1a (TH31).	5A	PCBs in Fish Tissue		1996	L	4.92
VAS-O11R_NFH02B10 / North Fork Holston River / From Tumbling Creek confluence downstream to Rt. 80 bridge crossing, WQS Section 1a (TH31).	5A	PCBs in Fish Tissue		1996	L	8.52
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91 near Broady Bottom above Saltville to Robertson Branch confluence in WQS, WQS Section 1 (TH29).	5A	PCBs in Fish Tissue		1996	L	1.83
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-PH Little Tumbling Creek

Cause Location: This segment includes from the power line crossing upstream to the Laurel Bed Lake discharge in Clinch Mountain

Station Wildlife Management Area.

City / County: Smyth Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5A

At 6CLTC004.59, 23% of pH measurements fall below the WQS for Class VI waters.

Cycle TMDL

Cause First Dev. Water

Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

5A pH

VAS-O10R_LTC01A02 / Little Tumbling Creek / Between Clinch Mountain and Flattop Mountain from power line crossing upstream to headwaters in Clinch Mountain State Wildlife Management Area,

WQS Section 1, DGIF ii (TH28).

Little Tumbling Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 5.79

2020

5.79

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-05-BAC North Fork Holston River Tributaries

Cause Location: This segment includes the headwaters of Laurel Creek within Jefferson National Forest upstream of the Roaring
Fork confluence downstream to the North Fork Holston River confluence, Locust Cove Creek which is a tributary to

the North Fork Holston River, Robertson Branch from the headwaters to the confluence with the North Fork Holston River, Turkey Run Creek from the headwaters to the confluence with the North Fork Holston River at McCready,

and Beaver Creek.

City / County: Bland Co. Smyth Co. Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Jefferson National Forest upstream of the Roaring Fork confluence

VAS-O10R_LAE02A02 / Laurel Creek, middle / From Little

through Poor Valley, WQS Section 1, DGIF vi (TH28).

Draft 2020

Fecal Coliform / 4A

AWQM station 6CLAE000.62 had a 25% exceedance of the E.coli water quality standard and station 6CLOC000.14 had a 67% exceedance, 6CRRB000.06 had a 25% exceedance, 6CTUR000.03 had 45% exceedance, and 6CBVR000.08 had a 66% exceedance of the E.coli water quality standard.

•	Cause atego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_BVR01A02 / Beaver Creek / From headwaters on Walker Mountain east of Page Hollow, downstream to mile 2.8 near Oak Grove, WQS Section 1 (TH29).	4A	Escherichia coli (E. coli)		2010	L	1.92
VAS-O10R_BVR01B04 / Beaver Creek / From North Fork Holston River confluence near North Holston upstream 2.8 miles, WQS Section 1, DGIF ii (TH29).	4A	Escherichia coli (E. coli)		2010	L	2.82
VAS-O10R_LAE01A02 / Laurel Creek / Headwaters within Jefferson National Forest upstream of the Roaring Fork confluence through Poor Valley, WQS Section 1, DGIF vi (TH28).	4A	Escherichia coli (E. coli)		2010	L	2.65
VAS-O10R_LAE02A02 / Laurel Creek, middle / From Little Tumbling Creek confluence at Tannersville downstream to confluence with North Fork Holston River. at Broadford, WQS Section 1, DGIF *** (TH28).	4A	Escherichia coli (E. coli)		2010	L	6.48
VAS-O10R_LOC01A02 / Locust Cove Creek / A North Fork Holston tributary near Rich Valley High School from headwaters near Rt. 16 on Brushy Mountain in Jefferson National Forest, in WQS Section 1 (TH27).	4A	Escherichia coli (E. coli)		2006	L	8.88
VAS-O10R_RRB01A02 / Robertson Branch / Mainstem from headwaters at Redrock Mountain downstream through Allison Gap to North Fork Holston River confluence in WQS Section 1 (TH29).	4A	Escherichia coli (E. coli)		2010	L	3.26
VAS-O10R_TUR01A10 / Turkey Run Creek / A North Fork Holston River tributary from Whiterock Mountain to confluence with North Fork Holston River at McCready in WQS Section 1 (TH29).	4A	Escherichia coli (E. coli)		2010	L	3.71
North Fork Holston River Tributaries			Estuary	Res	ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total Imp	paired	Size by Water Type:				29.72
	Cause atego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_LAE01A02 / Laurel Creek / Headwaters within	4A	Fecal Coliform		2004	L	2.65

4A Fecal Coliform

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2006

L

6.48

Tennessee and Big Sandy River Basins

Tumbling Creek confluence at Tannersville downstream to confluence with North Fork Holston River. at Broadford, WQS Section 1, DGIF *** (TH28).

VAS-O10R_LOC01A02 / Locust Cove Creek / A North Fork Holston tributary near Rich Valley High School from headwaters near Rt. 16 on Brushy Mountain in Jefferson National Forest, in WQS Section 1 (TH27).

A Fecal Coliform

2006 L 8.88

_ .. .

North Fork Holston River Tributaries **Recreation**

Estuary (Sq. Miles) Reservoir (Acres)

River (Miles)

Fecal Coliform - Total Impaired Size by Water Type:

18.01

Sources:

Rural (Residential Areas)

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-05-BEN Laurel Creek

Cause Location: This segment includes the headwaters within Jefferson National Forest in Bland County downstream to the

confluence with Roaring Fork.

City / County: Bland Co. Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological station located at 6CLAE018.29 was impaired based on VSCI scores of 55.29 and 78.68.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_LAE01A02 / Laurel Creek / Headwaters within Jefferson National Forest upstream of the Roaring Fork confluence through Poor Valley, WQS Section 1, DGIF vi (TH28). 5A Benthic Macroinve Bioassessments	ertebrates	2002	L	2.65
Laurel Creek Aquatic Life	Estuary (Sq. Miles)		ervoir :res)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water T	vne.			2 65

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-08-BEN **Little Tumbling Creek**

Cause Location: This segment includes from the power line crossing upstream to the Laurel Bed Lake discharge in Clinch Mountain

State Wildlife Management Area.

City / County: Smyth Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4C

Discharge from Laurel Bed Lake into boggy area (possibly created by Beaver dams).

Cycle **TMDL** First Dev. Cause Water Category Cause Name Listed Priority Assessment Unit / Water Name / Location Desc. Size

VAS-O10R_LTC01A02 / Little Tumbling Creek / Between Clinch Mountain and Flattop Mountain from power line crossing upstream to headwaters in Clinch Mountain State Wildlife Management Area, WQS Section 1, DGIF ii (TH28).

4C Benthic Macroinvertebrates Bioassessments

5.79

Little Tumbling Creek

Estuary Reservoir River (Acres) (Sq. Miles) (Miles) **Aquatic Life**

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

5.79

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-08-TEMP Little Tumbling Creek

Cause Location: This segment includes from the power line crossing upstream to the Laurel Bed Lake discharge in Clinch Mountain

Station Wildlife Management Area.

City / County: Smyth Co. Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5A

At station 6CLTC004.59, 3 of 13 (23%) temperature measurements exceeded WQS for Class VI waters.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size
AS-O10R LTC01A02 / Little Tumbling Creek / Between Clinch 5A Temperature 2020 L 5.79

VAS-O10R_LTC01A02 / Little Tumbling Creek / Between Clinch Mountain and Flattop Mountain from power line crossing upstream to headwaters in Clinch Mountain State Wildlife Management Area, WQS Section 1, DGIF ii (TH28).

Little Tumbling Creek

Little Tumbling Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Temperature - Total Impaired Size by Water Type: 5.79

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O11L-02-TEMP Laurel Bed Lake

Cause Location: This lake is owned by the Department of Game and Inland Fisheries and lies within Clinch Mountain Wildlife

Management Area.

City / County: Russell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5C

Station 6CLAU001.84 had a 30% exceedance of the water quality standard for temperature.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-O11L_LAU01A02 / Laurel Bed Lake / This lake is owned by DGIF and lies within Clinch Mountain State Wildlife Management Area. Mountain slope, 20 to 30 degrees, maximum depth 11.3 M, public access by permit, boat ramp, fishing, camping, picnicking, WQS Section 1 (TH30).

Laurel Bed Lake

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Temperature - Total Impaired Size by Water Type: 359.43

5C Temperature

2010

L

359.43

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-03-BEN North Fork Holston River

Cause Location: This segment extends from the confluence of Robertson Branch downstream to the confluence of Tumbling Creek.

City / County: Scott Co. Smyth Co. Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

A biological station located at 6CNFH080.45 was impaired based on the VSCI scores.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 4.92 VAS-O11R_NFH03A94 / North Fork Holston River / From 2006 Benthic Macroinvertebrates Bioassessments confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek in WQS Section 1a (TH31).

North Fork Holston River

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 4.92

Sources:

Natural Sources

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-03-CHLR **North Fork Holston**

Cause Location: This segment of the North Fork Holston River extends from the confluence with Robertson Branch in Saltville to the

Tumbling Creek confluence.

City / County: Scott Co. Smyth Co. Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Chloride / 4A

The benthic Total Maximum Daily Load (TMDL) was completed in 2006 and confirmed that there was a chloride impairment

due to natural conditions.

TMDL Cycle Cause First Dev. Water **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size 4A Chloride

VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek in WQS Section 1a (TH31).

North Fork Holston **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Chloride - Total Impaired Size by Water Type: 4.92

1996

4.92

Sources:

Natural Sources

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Tennessee and Big Sandy River Basins

Cause Group Code: O11R-04-BAC Logan Creek

Cause Location: Logan Creek is a North Fork Holston tributary. This segment includes the mainstem from the headwaters to the

North Fork Holston confluence.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CLOG000.12 had a 25% exceedance of the E.coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-O11R_LOG01A02 / Logan Creek / From headwaters, north of 4A Escherichia coli (E. coli)

Meadowview through Lindell parallel to Rt. 80, to North Fork Holston

River confluence, WQS Section 1 (TH33).

Logan CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

2006

5.42

5.42

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-05-BAC **Toole Creek**

Cause Location: Toole Creek is a North Fork Holston tributary. This segment includes the mainstem from headwaters to North Fork

Holston confluence.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CTOO000.25 had a 25% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Cause Water Priority Listed Size Assessment Unit / Water Name / Location Desc. Category Cause Name Escherichia coli (E. coli) 2006 5.85

VAS-O11R_TOO01A98 / Toole Creek / A North Fork Holston tributary. Mainstem from headwaters through Whites Mill community to North Fork Holston confluence, WQS Section 1, DGIF ii (TH33).

Toole Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 5.85

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Sources:

Rural (Residential Areas) **Unrestricted Cattle Access**

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Tennessee and Big Sandy River Basins

Cause Group Code: O11R-08-BAC **Brumley Creek**

Cause Location: From North Fork Holston River confluence upstream 4 miles to Duncanville, WQS Section 1, DGIF ***

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Relisted in 2016: AWQM station 6CBRU000.20 had a 17% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-O11R_BRU01B04 / Brumley Creek / From North Fork 2008 4.17 Escherichia coli (E. coli) Holston confluence upstream 4 miles to Duncanville, WQS Section 1,

DGIF *** (TH34).

Brumley Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 4.17

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-09-BAC East Fork Wolf Creek

Cause Location: This segment parallels Route 80 north of Hayter's Gap.

City / County: Russell Co. Smyth Co. Tazewell Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CEFW000.46 has a 17% exceedance of the E. coli water quality standard.

Cause Cause Cause Name | Cycle TMDL First Dev. Water Name | Category Cause Name | Category Category Cause Name | Category Category C

parallel to Route 80 north of Hayters Gap community TH32).

East Fork Wolf CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 3.47

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-11-BAC Finley Creek

Cause Location: This segment is a North Fork Holston River tributary at Glenford parallel to Route 741, west of Lindell.

City / County: Russell Co. Smyth Co. Tazewell Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CFIN001.26 has a 42% exceedance of the E. coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-O11R_FIN01A12 / Finley Creek / North Fork Holston River tributary at Glenford, west of Lindell, Parallels Rt. 741 and

unmaintained road (TH33).

Finley Creek
Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 1.90

Escherichia coli (E. coli)

1.90

2012

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-12-BAC **West Fork Wolf Creek**

Cause Location: This segment is west of Hayter's Gap between Little Mountain and Clinch Mountain parallel to Route 689.

City / County: Russell Co. Smyth Co. Tazewell Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station at 6CWOC000.02 had a 33% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size

VAS-O11R_WOC01A12 / West Fork Wolf Creek / Poor Valley between Little Mountain and Clinch Mountain west of Hayters Gap

community (TH32).

West Fork Wolf Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

> Escherichia coli (E. coli) - Total Impaired Size by Water Type: 3.16

Escherichia coli (E. coli)

2012

3.16

Sources:

Rural (Residential Areas) **Unrestricted Cattle Access**

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-02-BAC **Abrams Creek**

Cause Location: Abrams Creek is a North Fork Holston River tributary. This segment includes the mainstem from the headwaters to

the North Fork Holston River confluence.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CABR001.00 had a 25% exceedance of the water quality standard for E.coli.

Cycle **TMDL** Dev. Cause First Water Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size Escherichia coli (E. coli) 2006 VAS-O12R_ABR01A00 / Abrams Creek / Mainstem from Burson 11.77 Place to confluence with North Fork Holston River near Stacher Ford

in WQS Section 1 (TH38).

Abrams Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 11.77

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-03-BAC Cove Creek and Tribs

Cause Location: Cove Creek is a North Fork Holston River tributary. This segment includes the mainstem from the headwaters to

the North Fork Holston River confluence. Rich Valley Unnamed Tributary is a tributary to Fleenor Branch near

Valley Institute Elementary School.

City / County: Scott Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CCOV002.44 had a 27% exceedance and station 6AXEO000.25 had a 50% exceedance of the

bacteria water quality standard.

	ause tegory	/ Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_COV01A00 / Cove Creek / From headwaters south of Valley Institute to North Fork Holston River confluence south of Maces Spring in WQS Section 1 (TH40).	4A	Escherichia coli (E. coli)		2006	L	13.36
VAS-O12R_XEO01A12 / Rich Valley unnamed tributary / Unnamed tributary to Fleenor Branch near Valley Institute, WQS Section 1 (TH40).	4A	Escherichia coli (E. coli)		2018	L	0.85
Cove Creek and Tribs			Estuary (Sq. Miles)	Rese (Ac	ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Impa	aired	Size by Water Type:		()	,	14.21

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-03-BEN Greendale Creek

Cause Location: This segment extends from the North Fork Holston River confluence upstream 4.1 miles.

City / County: Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological station located at 6CGRN003.29 was impaired based on VSCI scores of 48.0 and 49.5 in 2018.

Cycle **TMDL** First Dev. Cause Water Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size 5.03 VAS-O12R_GRN01A00 / Greendale Creek / Greendale Creek 2010 Benthic Macroinvertebrates Н Bioassessments from North Fork Holston confluence east of Rt. 19 bridge, upstream 4.1 miles to Black Hollow Road, WQS Section 1, vi (TH35).

Greendale Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 5.03

Sources:

Highway/Road/Bridge Livestock (Grazing or Rural (Residential Areas) Runoff (Non-construction Feeding Operations)

Related)

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-04-BAC Little Moccasin Creek

Cause Location: Little Moccasin Creek is a North Fork Holston River tributary. This segment includes the mainstem from the

headwaters to the North Fork Holston River confluence.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CLMC000.05 had a 64% exceedance of the E.coli water quality standard.

Cycle TMDL
Cause
Cause
First Dev. Water
Assessment Unit / Water Name / Location Desc.
Category Cause Name
Listed Priority Size

/AS-O12R LMC01A02 / Little Moccasin Creek / Mainstem from 4A Escherichia coli (E. coli) 2006 L 5.02

VAS-O12R_LMC01A02 / Little Moccasin Creek / Mainstem from headwaters on Brumley Mountain to North Fork Holston River confluence, west of Highway 19 bridge at Holston community, WQS Section 1 (TH43).

Little Moccasin Creek

Recreation

Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 5.02

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: 012R-04-BEN **Rich Valley Unnamed Tributary**

Cause Location: Unnamed tributary to Fleenor Branch near Valley Institute Elementary School.

City / County: Scott Co. Washington Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Station 6CXEO000.25 was impaired based on VSCI scores of 52.3 and 38.9 in 2017.

Cycle **TMDL** First Dev. Cause Water Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 0.85 VAS-O12R_XEO01A12 / Rich Valley unnamed tributary / 2020 Benthic Macroinvertebrates Bioassessments

Unnamed tributary to Fleenor Branch near Valley Institute, WQS Section 1 (TH40).

Rich Valley Unnamed Tributary

Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 0.85

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-05-BAC **Nordyke Creek**

Cause Location: A North Fork Holston River tributary originating near Rush Corner.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Station 6CNOR000.14 had a 33% exceedance of the e.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-O12R_NOR01A02 / Nordyke Creek / A North Fork Holston 4A Escherichia coli (E. coli) 2006 6.14 tributary originating near Rush Corner, WQS Section 1 (TH37).

Nordyke Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 6.14

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-06-BAC Smith Creek and Gaspard Creek

Cause Location: Smith Creek is a North Fork Holston River tributary. This segment includes the mainstem from the headwaters to

the North Fork Holston River confluence and Gaspard Creek a Smith Creek tributary near Craigs Mill.

City / County: Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CSMI000.22 had a 41% exceedance and station 6CGAS000.45 had a 35% exceedance of the

E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_GAS01A16 / Gaspard Creek / Smith Creek tributary near Craigs Mill, Section 1 (TH36).	4A	Escherichia coli (E. coli)		2016	L	1.37
VAS-O12R_SMI01A02 / Smith Creek / Tributary originating near Withers, confluences with North Fork Holston at Horseshoe Bend, WQS Section 1 TH36).	4A	Escherichia coli (E. coli)		2006	L	8.12
Smith Creek and Gaspard Creek			Estuary	Res	ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total	Impaire	d Size by Water Type:				9.49

Sources:

Grazing	in	Riparian	01
Shorelin	e i	Zones	

Rural (Residential Areas)

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O13R-03-BAC North Fork Holston River Tributaries

Cause Location: This segment includes the mainstem of Blue Springs Branch from the headwaters to the confluence of the North

Fork Holston River, the mainstem of Dowell Branch downstream to the confluence with the North Fork Holston River, the mainstem of Hilton Creek from the confluence with the North Fork Holston River upstream approximately 1.5 miles, 1.34 miles of an unnamed tributary immediately downstream of Hiltons Creek at Owen Corner, and Possum Creek from the headwaters downstream to the confluence with the North Fork Holston River.

City / County: Scott Co.
Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

AWQM station at 6CBLU000.15 had a 83% exceedance of the E.coli water quality standard, station 6CDOW000.02 had a 41% exceedance of the standard, station 6CHIL000.02 had a 36% exceedance, 6CXBV000.21 had a 30% exceedance, 6CPSM000.04 had a 33% and station 6CPSM015.79 had a 27% exceedance of the E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O13R_BLU01A08 / Blue Springs Branch & tributaries / Tributary at Maces Spring, flows through Eddington Gap, WQS Section 1 (TH41).	4A	Escherichia coli (E. coli)		2008	L	3.73
VAS-O13R_DOW01A08 / Dowell Branch / North Fork Holston tributary that flows through Dowell Gap between Blue Springs Branch and Hilton Creek (TH41).	4A 1	Escherichia coli (E. coli)		2008	L	1.78
VAS-O13R_HIL01A08 / Hilton Creek / Mainstem segment from water intake downstream through Hilton community and Hilton Gap to North Fork Holston confluence, section 1 (TH41).	4A	Escherichia coli (E. coli)		2008	L	1.85
VAS-O13R_PSM01A02 / Possum Creek / From Jones Branch confluence south of Kermit at SR 634, to North Fork Holston River confluence near Tennessee state line, WQS Section 1 (TH44).	4A	Escherichia coli (E. coli)		2010	L	15.89
VAS-O13R_PSM02B06 / Possum Creek / From Tennessee state line to Jones Branch confluence south of Kermit, WQS Section 1 (TH44).	4A	Escherichia coli (E. coli)		2018	L	6.03
VAS-O13R_XBV01A08 / Unnamed tributary at Owen Corner / Tributary from north confluences with North Fork Holston River at Brickyard Gap downstream of Hiltons Creek (TH41).	4A	Escherichia coli (E. coli)		2008	L	1.37
North Fork Holston River Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Im	npaired	d Size by Water Type:				30.65

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O14R-01-BAC Big Moccasin Creek

Cause Location: This segment begins 8.01 miles upstream of the PWS segment and continues downstream to rivermile 18.91 at

unnamed tributary. It also includes the mainstem from Red Hill Branch confluence downstream to the North Fork

Cyclo TMDI

Holston River confluence.

City / County: Scott Co. Washington Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6CBMC000.38 had a 17% exceedance of the E. coli water quality standard. Station 6CBMC026.32 had a 33% exceedance of the E.coli standard, station 6CBMC042.54 had a 42% exceedance and station 6CBMC049.05 had a 50% exceedance.

	Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		First Listed	Dev. Priority	Water Size
F	VAS-O14R_BMC01A98 / Big Moccasin Creek / From confluence of Big Moccasin and Little Moccasin Creeks downstream to North Fork Holston River confluence in WQS Section 1, Weber City area (TH43).	4A	Escherichia coli (E. coli)		2012	L	2.87
1	VAS-O14R_BMC04A00 / Big Moccasin Creek / From Middle Fork Moccasin Creek and South Fork Moccasin Creek confluence downstream 7.87 miles to Lick Skillet Hollow in WQS Section 1 (TH42).	4A	Escherichia coli (E. coli)		2010	L	8.24
5	VAS-O14R_BMC05A02 / Big Moccasin Creek / Upstream of Snowflake and downstream of Dean Branch confluence south of Nickelsville, WQS Section 1 (TH43).	4A	Escherichia coli (E. coli)		2008	L	10.55
۶ ۱	VAS-O14R_BMC06A02 / Big Moccasin Creek / Segment is approximately half in Scott County and half in Russell County in WQS Section 1, upstream at Fugues Hill and ends at Dean Branch confluence (TH42).	4A	Escherichia coli (E. coli)		2008	L	9.69
5	VAS-O14R_BMC07A02 / Big Moccasin Creek / From end of PWS segment at Fugate Hill upstream 8.01 miles to Lick Skillet Hollow, WQS Section 1 (TH42).	6 4A	Escherichia coli (E. coli)		2008	L	8.24
	Big Moccasin Creek			Estuary (Sq. Miles)		ervoir	River
	Recreation Escherichia coli (E. coli) - Total Ir	mpaired	Size by Water Type:	(3q. Miles)	(AC	res)	(Miles) 39.59
							30.00

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P01L-03-HG **Lake Witten**

Cause Location: This Lake is located in Cavitts Creek Park in Tazewell County.

City / County: Tazewell Co. Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Two largemouth fish tissue samples collected in May 2007 exceeded the Virginia Department of Heath's level of concern for

Mercury (Hg).

Cycle **TMDL** First Dev. Cause Water Listed Priority Category Cause Name Assessment Unit / Water Name / Location Desc. Size Mercury in Fish Tissue

VAS-P01L CAV01A10 / Lake Witten / In Cavitts Creek Park this recreation reservoir was constructed by the U.S. Natural Resource Conservation Service, the lake is owned by Tazewell County; in WQS Section 2 (TC01).

Lake Witten **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Fish Consumption**

Mercury in Fish Tissue - Total Impaired Size by Water Type: 53.17

2010

L

53.17

Sources:

Atmospheric Deposition -Source Unknown

Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-01-BAC Clinch River

Cause Location: This segment includes the mainstream from Lincolnshire Branch confluence downstream to Deskin Creek.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

Cycle TMDI

The AWQM station located at 6BCLN346.60 had a 50% exceedance of the E.coli water quality standard and station 6BCLN348.00 had a 41% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		First Listed	Dev. Priority	Water Size
VAS-P01R_CLN01A98 / Clinch River / Mainstem from North Fork Clinch River confluence through Town of Tazewell to Plum Creek confluence, WQS Section 2 (TC01).	4A	Escherichia coli (E. coli)		2010	L	6.14
VAS-P02R_CLN01A98 / Clinch River / Mainstream from Plum Creek near Pisgah downstream to Deskins Creek near Maxwell, WQS Section 2 (TC02).	4A	Escherichia coli (E. coli)		2010	L	6.11
Clinch River Recreation			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
Escherichia coli (E. coli) - Total Ir	npaired	Size by Water Type:				12.25
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01R_CLN01A98 / Clinch River / Mainstem from North Fork Clinch River confluence through Town of Tazewell to Plum Creek confluence, WQS Section 2 (TC01).	4A	Fecal Coliform		2004	L	6.14
VAS-P02R_CLN01A98 / Clinch River / Mainstream from Plum Creek near Pisgah downstream to Deskins Creek near Maxwell, WQS Section 2 (TC02).	4A	Fecal Coliform		2006	L	6.11
Clinch River			Estuary		ervoir	River
Recreation Fecal Coliform - Total Ir	npaired	Size by Water Type:	(Sq. Miles)	(Ac	eres)	(Miles) 12.25

Sources:

Rural (Residential Areas) Source Unknown Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-01-BEN Clinch River and Cavitts Creek

Cause Location: This segment includes the mainstream from Lincolnshire Branch confluence downstream to the Plum Creek

confluence and the lower mainstem of Cavitts Creek from Johnson Branch to the confluence with the Clinch River

Cause

Cycle

First

TMDL

Dev.

Water

at River Jack.

City / County: Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

The biological station at 6BCLN346.60 was impaired based on VSCI scores. The biological station at 6BCAV000.05 was

impaired based on VSCI scores of 40.4 and 70.8 in 2017.

Assessment Unit / Water Name / Location Desc.	Catego	ory Cause Name		Listed	Priority	Size
VAS-P01R_CAV01A00 / Cavitts Creek / Lower mainstem from Johnson Branch to confluence with Clinch River at River Jack in WQS Section 2m (TC01).	4A	Benthic Macroinvertebra Bioassessments	es	2016	L	2.40
VAS-P01R_CLN01A98 / Clinch River / Mainstem from North For Clinch River confluence through Town of Tazewell to Plum Creek confluence, WQS Section 2 (TC01).	rk 4A	Benthic Macroinvertebra Bioassessments	es	2002	L	6.14
Clinch River and Cavitts Creek Aquatic Life			Estuary (Sq. Miles)	Reservoir (Acres)		River (Miles)
Benthic Macroinvertebrates Bioassessments - Total	Impaire	d Size by Water Type:	(-1)	(-	,	8.54

Sources:

Animal Feeding Operations	Crop Production (Crop Land	Loss of Riparian Habitat	Rural (Residential Areas)
(1.00)			

(NPS) or Dry Land)

Unrestricted Cattle Access Urban Runoff/Storm Sewers

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-02-BAC Plum Creek and North Fork Clinch River

Cause Location: This segment extends from the headwaters of Plum Creek to the Clinch River confluence and North Fork Clinch

River downstream to the confluence with the South Fork Clinch River at Fourway.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

AWQM stations 6BPLU000.40 and 6BNCL000.30 both had a 16% exceedance of the E.coli water quality standard.

Fecal Coliform - Total Impaired Size by Water Type:						2.88
Plum Creek and North Fork Clinch River Recreation			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
VAS-P01R_PLU01A04 / Plum Creek / Central Tazewell County from Frog Level to Clinch River confluence, WQS Section 2 (TC01)	4A).	Fecal Coliform		2004	L	2.88
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
Escherichia coli (E. coli) - Total	Impaired	d Size by Water Type:				5.49
Plum Creek and North Fork Clinch River Recreation			Estuary (Sq. Miles)		Reservoir (Acres)	
VAS-P01R_PLU01A04 / Plum Creek / Central Tazewell County from Frog Level to Clinch River confluence, WQS Section 2 (TC01)	4A).	Escherichia coli (E. coli	1	2010	L	2.88
VAS-P01R_NCL01A04 / North Fork Clinch River / Confluences with South Fork Clinch River at Fourway and extends upstream to unnamed tributary just past the SR 651/US460 intersection, WQS Section 2c (TC01).	4A	Escherichia coli (E. coli	1	2010	L	2.61
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Grazing in Riparian or Shoreline Zones

Source Unknown

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-02-BEN Plum Creek

Cause Location: This segment extends from the headwaters of Plum Creek downstream to the confluence with the Clinch River.

City / County: Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological station located at 6BPLU002.15 was impaired based on a VSCI score of 41 in 2008.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		First Listed	Dev. Priority	Water Size
VAS-P01R_PLU01A04 / Plum Creek / Central Tazewell Cour from Frog Level to Clinch River confluence, WQS Section 2 (TC	,	Benthic Macroinvertebrat Bioassessments	es	2010	L	2.88
Plum Creek Aquatic Life			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - To	stal Impairo	d Siza by Water Type:				2.88

Cycle TMDI

Sources:

Loss of Riparian Habitat Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-03-BAC South Fork Clinch River and Cavitts Creek

Cause Location: This segment includes the South Fork Clinch River and its tributaries from the Tazewell raw water intake upstream

5 miles and Cavitts Creek from the Johnson Branch confluence downstream to the confluence with the Clinch River

at Riverjack.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BSFK000.77 had a 41% exceedance of the E.coli water quality standard and station

6BCAV000.02 had a 25% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location Desc. Category Cause Name VAS-P01R_CAV01A00 / Cavitts Creek / Lower mainstem from Johnson Branch to confluence with Clinch River at River Jack in WQS Section 2m (TC01). VAS-P01R_SFK01A10 / South Fork Clinch River / Portion of South Fork Clinch River from Tazewell raw water intake upstream 5 miles, WQS Section 2c (TC01). Category Cause Name 4A Escherichia coli (E. coli) Escherichia coli (E. coli)		isted 2010	Priority M	Size 2.40
VAS-P01R_SFK01A10 / South Fork Clinch River / Portion of South 4A Escherichia coli (E. coli) Fork Clinch River from Tazewell raw water intake upstream 5 miles,				2.40
	2	2010	М	4.17
South Fork Clinch River and Cavitts Creek Recreation	Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:				6.57

Sources:

Rural (Residential Areas) Source Unknown Unrestricted Cattle Access Wastes from Pets

Tennessee and Big Sandy River Basins

Cause Group Code: P02R-02-BAC **Laurel Fork**

Cause Location: An Indian Creek tributary parallel to Whetstone Ridge that confluences at the Mouth of Laurel.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BLRF000.03 had a 16% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-P02R_LRF01A10 / Laurel Fork / Indian Creek tributary 2012 4.57 Escherichia coli (E. coli) parallel Whetstone Ridge, confluences at Mouth of Laurel, WQS Section 2 (TC03). Laurel Fork Estuary Reservoir River

(Sq. Miles) (Acres) (Miles) Recreation Escherichia coli (E. coli) - Total Impaired Size by Water Type: 4.57

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-01-BAC **Clinch River Tributaries**

Cause Location: This segment includes the lower mainstem of Middle Creek from river mile 2.53 downstream to the Clinch River confluence, Coal Creek from the confluence with Left Fork Coal Creek to the confluence with the Clinch River, Big Creek from the confluence with West Fork to the confluence with the Clinch River, Mudlick Creek from the confluence with Zeke Creek downstream to the confluence with the Clinch River. Town Hill Creek from the confluence with Little Town Hill Creek to the confluence with the Clinch River. Deskin Branch which extends from an unnamed tributary through the golf course in Maxwell to the confluence with the Clinch River, and Pounding Mill Branch, a Clinch River tributary south of Pounding Mill.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BMID000.20 had a 37% exceedance of the E.coli water quality standard, 6BBIG000.12 had a 66% exceedance. 6BCOL000.12 had an 55% exceedance. 6BMCK000.11 had a 16% exceedance. 6BTHC000.03 had a 50% exceedance, 6BDES000.06 had a 41% exceedance and station 6BPON000.04 had a 36% exceedance of the E. coli water quality standard. Station 6BMCK000.54 had a 21% exceedance of the e.coli WQS.

VAS-P03R_BIG01A10 / Big Creek / Clinch River tributary from north of Richlands, WQS Section 2b (TC04). VAS-P03R_COL01A04 / Coal Creek / From confluence with Clinch	4A 4A	Escherichia coli (E. coli) Escherichia coli (E. coli)		2010	L L	1.39 3.12
River, at Raven, upstream through Red Ash to Left Fork Coal Creek confluence, WQS Section 2 (TC04). VAS-P03R_MCK01A10 / Mudlick Creek / A Clinch River tributary from the north at Doran, WQS Section 2 (TC04).	4A	Escherichia coli (E. coli)		2010	L	2.11
VAS-P03R_MID01A98 / Middle Creek / Lower mainstem from Stony Ridge downstream to Clinch River confluence near Cedar Bluff, WQS Section 2 (TC04).	4A	Escherichia coli (E. coli)		2006	L	3.05
VAS-P03R_THC01A10 / Town Hill Creek / Clinch River tributary from the north at Clinch Valley Memorial Cemetery, WQS Section 2 (TC04)	4A	Escherichia coli (E. coli)		2010	L	0.25
Clinch River Tributaries			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
Escherichia coli (E. coli) - Total Im	paire	d Size by Water Type:		•	-	14.79

Sources:

Rural (Residential Areas) Source Unknown **Unrestricted Cattle Access**

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-01-BEN Clinch River Tributaries

Cause Location: This segment extends from confluence with Clinch River upstream to the Left Fork Coal Creek confluence, Big

Creek from the confluence with West Fork downstream to the confluence with the Clinch River, Mudlick Creek from the confluence with Zeke Creek downstream to the confluence with the Clinch River, and Town Hill Creek from the

confluence with Little Town Hill Creek downstream to the confluence with the Clinch River.

City / County: Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The Probabilistic Monitoring station at 6BCOL001.93, 6BBIG000.99, 6BMCK000.04, and 6BTHC000.06 were impaired based on the VSCI scores.

Clinch River Tributaries Aquatic Life			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
VAS-P03R_THC01A10 / Town Hill Creek / Clinch River tributary from the north at Clinch Valley Memorial Cemetery, WQS Section 2 (TC04)	5A	Benthic Macroinvertebra Bioassessments		2010	L	0.25
VAS-P03R_MCK01A10 / Mudlick Creek / A Clinch River tributary from the north at Doran, WQS Section 2 (TC04).	5A	Benthic Macroinvertebra Bioassessments	tes	2010	L	2.11
VAS-P03R_COL01A04 / Coal Creek / From confluence with Clinch River, at Raven, upstream through Red Ash to Left Fork Coal Creek confluence, WQS Section 2 (TC04).	5A	Benthic Macroinvertebra Bioassessments	tes	2008	L	3.12
VAS-P03R_BIG01A10 / Big Creek / Clinch River tributary from north of Richlands, WQS Section 2b (TC04).	5A	Benthic Macroinvertebra Bioassessments	tes	2010	L	1.39
	Causo atego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Coal Mining Rural (Residential Areas) Silviculture Activities Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-02-BAC Clinch River

Cause Location: The community of Raven is located here and the segment includes the mainstem from just upstream of the Town

Hill Creek confluence downstream to the Mill Creek confluence. It also includes the mainstem of the Clinch River

from the Mill Creek confluence upstream to former Raven-Doran raw water intake.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

Cycle TMDL

AWQM station located at 6BCLN315.11 had a 33% exceedance of the E.coli water quality standard and 6BCLN321.13 had a

17% exceedance.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		First Listed	Dev. Priority	Water Size
VAS-P03R_CLN01A98 / Clinch River / From the former raw wa intake just upstream of the Town Hill Creek confluence downstrea to the Mill Creek confluence south of Raven, WQS Section 2b (To	am	Escherichia coli (E. coli)		2010	L	5.55
VAS-P03R_CLN02A00 / Clinch River / Clinch River from Town Richlands former raw water raw water intake upstream to Dry Bra confluence, near Cedar Bluff, WQS Section 2b (TC04).		Escherichia coli (E. coli)		2004	L	3.01
Clinch River			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Tota	ıl Impaire	d Size by Water Type:				8.56
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P03R_CLN01A98 / Clinch River / From the former raw wa intake just upstream of the Town Hill Creek confluence downstrea to the Mill Creek confluence south of Raven, WQS Section 2b (To	am	Fecal Coliform		2002	L	5.55
Clinch River			Estuary	Res	ervoir	River
Recreation			(Sq. Miles)		res)	(Miles)
Fecal Coliform - Tota	ıl Impaire	d Size by Water Type:				5.55

Sources:

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-02-HG Clinch River

Cause Location: This segment begins just upstream of the Town Hill confluence and continues downstream to the Mill Creek

confluence.

City / County: Tazewell Co. Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Three fish samples collected in 2007 exceeded the Department of Environmental Quality's screening value for Mercury.

Cycle **TMDL** First Dev. Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name 5A 2010 L VAS-P03R_CLN01A98 / Clinch River / From the former raw water Mercury in Fish Tissue 5.55

intake just upstream of the Town Hill Creek confluence downstream to the Mill Creek confluence south of Raven, WQS Section 2b (TC04).

Clinch River **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Fish Consumption** Mercury in Fish Tissue - Total Impaired Size by Water Type: 5.55

Sources:

Atmospheric Deposition -**Toxics**

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-01-BAC Lewis Creek and Hess Creek

Cause Location: This segment includes the mainstem from the Stone Branch confluence downstream to the Clinch River confluence.

City / County: Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station located at 6BLWS000.06 had a 83% exceedance of the E.coli water quality standard, station 6BLWS004.84 had a 29% exceedance and 6BHES000.05 had a 33% exceedance of the E.coli water quality standard.

Recreation	mpaired Size by Water Type:	(Sq. Miles)	(710	163)	(IVIIICO)
Lewis Creek and Hess Creek		Estuary (Sg. Miles)		ervoir	River (Miles)
VAS-P04R_LWS01A98 / Lewis Creek / Mainstem from the Stone Branch confluence downstream through Putnam, to the Clinch River confluence, WQS Section 2 (TC10).			2006	L	4.98
Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
Escherichia coli (E. coli) - Total I	mpaired Size by Water Type:				9.47
Lewis Creek and Hess Creek Recreation		Estuary (Sq. Miles)		ervoir eres)	River (Miles)
VAS-P04R_LWS01A98 / Lewis Creek / Mainstem from the Stone Branch confluence downstream through Putnam, to the Clinch River confluence, WQS Section 2 (TC10).	•)	2010	L	4.98
VAS-P04R_LWS01A10 / Lewis Creek / Grassy Creek confluence downstream to Stone Branch confluence, at Flatrock, WQS Section (TC10).)	2010	L	3.45
VAS-P04R_HES01A10 / Hess Creek / A Swords Creek tributary flowing from Groundhog Hollow to the east, south of Dye, WQS Section 2 (TC05).	4A Escherichia coli (E. coli)	2010	L	1.04
Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-01-BEN Lewis Creek

Cause Location: This segment includes the mainstem from the Stone Branch confluence downstream to the Clinch River confluence.

City / County: Russell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Sedimentation/Siltation /

The biological station located at 6BLWS000.90 was impaired based on VSCI scores of 28.67 and 56.90 in 2016. Probabilistic Monitoring station located at 6BLWS003.88 were impaired based on VSCI scores of 53.85 and 48.84 in 2008.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P04R_LWS01A98 / Lewis Creek / Mainstem from the Stone Branch confluence downstream through Putnam, to the Clinch River confluence, WQS Section 2 (TC10).

4A Benthic Macroinvertebrates Bioassessments

2002 L 4.98

Lewis Creek

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

4.98

Sources:

Crop Production (Crop Land Impacts from Abandoned Rural (Residential Areas) Unrestricted Cattle Access or Dry Land) Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-02-BAC **Swords Creek**

Cause Location: This segment extends from the Sulphur Spring Branch confluence downstream to the confluence with the Clinch

City / County: Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Station 6BSW 0000.11 had 32% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Cause Water Priority Assessment Unit / Water Name / Location Desc. Listed Size Category Cause Name

VAS-P04R_SWD01A00 / Swords Creek / Mainstem from Sulphur Spring Branch confluence at Dye downstream to confluence with

Clinch River at the Swords Creek community, WQS Section 2 (TC05).

Swords Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 2.91

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Escherichia coli (E. coli)

2010

L

2.91

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-02-BEN Swords Creek

Cause Location: This segment includes the mainstem from the Sculpture Spring Branch confluence downstream to the confluence

with Clinch River.

City / County: Russell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological monitoring station located at 6BSWO000.11 was impaired based on VSCI scores of 47.68 and 68.53.

Assessment Unit / Water Name / Location Desc.	Cause Catego	ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_SWD01A00 / Swords Creek / Mainstem from Sulphur Spring Branch confluence at Dye downstream to confluence with Clinch River at the Swords Creek community, WQS Section 2 (TC05)		Benthic Macroinvertebra Bioassessments	ites	2006	L	2.91
Swords Creek Aquatic Life			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Ir	mpaired	Size by Water Type:				2.91

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-03-BAC Clinch River

Cause Location: Clinch River mainstem from the Lewis Creek confluence downstream to the Big Cedar Creek confluence.

City / County: Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Station 6BCLN288.41 had a 33% exceedance of the e.coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P04R_CLN01A00 / Clinch River / Clinch River mainstem from 4A Escherichia coli (E. coli) Lewis Creek confluence downstream to Big Cedar Creek confluence,

WQS Section 2 (TC11)

Clinch River

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 11.84

2020

11.84

Sources:

Grazing in Riparian or Rural (Residential Areas) Unrestricted Cattle Access Shoreline Zones

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-03-BEN Mill Creek

Cause Location: From the Clinch River confluence near West Raven upstream to the confluence of Right Fork Mill Creek.

City / County: Russell Co. Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological monitoring station located at 6BMLG000.55 was impaired based on VSCI scores of 55.5 and 53.4 in 2013.

Cycle First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size 3.22 VAS-P04R_MLG01A00 / Mill Creek / From Clinch River confluence 5A 2014 Benthic Macroinvertebrates Н Bioassessments near West Raven upstream 2.7 miles along Tazewell/Russell County

line to the confluence of Right Fork Mill Creek, WQS Section 2 (TC05).

Mill Creek
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 3.22

Sources:

Rural (Residential Areas) Streambank

Modifications/Destabilization

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-04-BEN Big Lick Creek

Cause Location: A Sulphur Spring Branch tributary, enters from the east at Dye.

City / County: Russell Co. Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Station 6BBLC000.19 was impaired based on VSCI scores of 55.7 and 59.0 in 2017.

Cycle **TMDL** First Dev. Water Cause Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-P04R_BLC01A10 / Big Lick Creek / Sulphur Spring Branch 2020 5.21 Benthic Macroinvertebrates Bioassessments tributary, enters from east at Dye, WQS Section 2 (TC05).

Big Lick Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 5.21

Sources:

Rural (Residential Areas) Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P05R-01-BAC Indian Creek

Cause Location: This segment extends from the Highway 19 bridge to the Little River confluence at Wardell.

City / County: Russell Co. Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM station located at 6BIDN000.69 had a 75% exceedance of the bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_IDN01A04 / Indian Creek / Highway 19 crossing to Little River confluence at Wardell, WQS Section 2 (TC08).	4A	Escherichia coli (E. coli)		2010	L	4.10
Indian Creek Recreation			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Escherichia coli (E. coli) - Total	l Impaired	Size by Water Type:				4.10
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_IDN01A04 / Indian Creek / Highway 19 crossing to Little River confluence at Wardell, WQS Section 2 (TC08).	4A	Fecal Coliform		2004	L,	4.10
Indian Creek Recreation			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Fecal Coliform - Total	l Impaired	Size by Water Type:				4.10

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P05R-04-BAC Little River

Cause Location: This segment includes the mainstem above the Claypool Hill wastewater treatment plant downstream to the

confluence with Grays Branch.

City / County: Russell Co. Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM station located at 6BLTR0018.19 had a 48% exceedance of the E.coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_LTR02A00 / Little River / Little River above Claypool 4A Escherichia coli (E. c. Hill STP downstream to Laurel Creek confluence near Wardell, WQS Section 2g (TC07).	oli)	2010	L	5.25
VAS-P05R_LTR02A02 / Little River / Laurel Creek confluence 4A Escherichia coli (E. c near Wardell downstream to Grays Branch confluence at Russell/Tazewell County line, WQS Section 2 (TC07).	oli)	2012	L	4.12
Little River	Estuary		ervoir	River
Recreation	(Sq. Miles)	(AC	res)	(Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type	e:			9.37
Cause Assessment Unit / Water Name / Location Desc. Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_LTR02A00 / Little River / Little River above Claypool 4A Fecal Coliform Hill STP downstream to Laurel Creek confluence near Wardell, WQS Section 2g (TC07).		2004	L	5.25
VAS-P05R_LTR02A02 / Little River / Laurel Creek confluence 4A Fecal Coliform near Wardell downstream to Grays Branch confluence at Russell/Tazewell County line, WQS Section 2 (TC07).		2008	L	4.12
Little River	Estuary		ervoir	River
Recreation	(Sq. Miles)	(Ac	res)	(Miles)
Fecal Coliform - Total Impaired Size by Water Type	e:			9.37

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P05R-05-BAC Maiden Spring Creek and Liberty Creek

Cause Location: This segment begins at the unnamed tributary at Buchanan Cemetery and continues downstream to the Little River confluence. Liberty Creek from the spring downstream of the Rt. 608 bridge upstream to an unnamed tributary.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station 6BMSC001.53 had a 43% exceedance of the bacteria water quality standard and station 6BMSC008.98 had a 29% exceedance of the bacteria standard. Station 6BLIB001.89 had a 92% exceedance of the e.coli WQS.

Cause Assessment Unit / Water Name / Location Desc. Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_LIB01A02 / Liberty Creek / Mainstem from mile 1.6 4A Escherichia coli (E. coli downstream to Little River confluence, west of Morris Knob, in WQS Section 2 (TC07).)	2020	L	1.88
VAS-P05R_LIB02A04 / Liberty Creek / At Liberty from spring downstream of Rt. 608 bridge upstream parallel to SR 91 to unnamed tributary confluence, WQS Section 2 (TC07).)	2020	L	1.89
VAS-P05R_MSC01A02 / Maiden Spring Creek / From the Little River confluence upstream to foot of Morris Knob north of Robbins Gap, WQS Section 2 (TC06). 4A Escherichia coli (E. coli)	2016	L	6.70
VAS-P05R_MSC01C04 / Maiden Spring Creek / This is the middle 4A Escherichia coli (E. coli segment of Maiden Spring Creek from unnamed tributary with Buchanan Cemetery downstream through Thompson Valley to a Morris Knob tributary, WQS Section 2 (TC06).)	2010	L	9.51
Maiden Spring Creek and Liberty Creek Recreation	Estuary (Sq. Miles)		ervoir eres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:				19.98
Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_MSC01A02 / Maiden Spring Creek / From the Little River confluence upstream to foot of Morris Knob north of Robbins Gap, WQS Section 2 (TC06).		2004	L	6.70
VAS-P05R_MSC01C04 / Maiden Spring Creek / This is the middle 4A Fecal Coliform segment of Maiden Spring Creek from unnamed tributary with Buchanan Cemetery downstream through Thompson Valley to a Morris Knob tributary, WQS Section 2 (TC06).		2004	L	9.51
Maiden Spring Creek and Liberty Creek Recreation	Estuary (Sq. Miles)		ervoir res)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	,	`	,	16.21

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P05R-07-BEN **Laurel Creek**

Cause Location: This segment is a Little River tributary from south of Wardell parallel to Route 609.

City / County: Russell Co. Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Benthic special study station located at 6BLUC000.73 was impaired based on the VSCI scores.

Cycle **TMDL** First Dev. Water Cause Priority Listed Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-P05R_LUC01A10 / Laurel Creek / Little River tributary that 2012 3.41 Benthic Macroinvertebrates Bioassessments

flows north draining Clinch Mountain Spur from Brown Gap, south of Wardell, WQS Section 2g (TC07).

Laurel Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 3.41

Sources:

Rural (Residential Areas) Streambank

Modifications/Destabilization

Tennessee and Big Sandy River Basins

Cause Group Code: P06R-01-BAC Big Cedar Creek and Tributaries

Cause Location: This segment begins 5 miles upstream of Lebanon's raw water intake and continues downstream to the confluence with the Clinch River, Loop Creek from Route 80 to the Elk Garden Creek confluence, Burgess Creek from the Campbell Branch confluence to the Big Cedar Creek confluence and Elk Garden Creek from Elk Garden to the

confluence with Big Cedar Creek.

City / County: Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station on Big Cedar Creek at 6BBCD001.89 had a 33% exceedance of the E.coli water quality standard, station 6BBCD006.66 had 42% exceedance of the E.coli standard and station 6BBCD009.83 had a 75% exceedance of the bacteria water quality standard. AWQM station on Burgess Creek at 6BBUG000.10 had a 66% exceedance of the E. coli water quality standard. AWQM stations on Elk Garden Creek had a 75% & 92% exceedance of the E. coli water quality standard. Two AWQM stations on Loop Creek at 6BLOO04.25 and 6BLOO06.03 had a 50% exceedance of the E. coli water quality standard.

	Cause			Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P06R_BCD01A98 / Big Cedar Creek / From vicinity of Daughertys Cave downstream to confluence with Clinch River, WQS Section 2 (TC06).	•	ry Cause Name Escherichia coli (E. coli)		2006	L	4.20
VAS-P06R_BCD02A00 / Big Cedar Creek / East of Lebanon, from Lebanon raw water intake downstream to Little Cedar Creek confluence, WQS Section 2 (TC13).	4A	Escherichia coli (E. coli)		2006	L	2.79
VAS-P06R_BCD02A02 / Big Cedar Creek / North of Lebanon, from Little Cedar Creek confluence to SR 640 bridge near Daughertys Cave, WQS Section 2 (TC13).	4A	Escherichia coli (E. coli)		2008	L	1.10
VAS-P06R_BCD03A00 / Big Cedar Creek / Big Cedar Creek headwaters from Lebanon's raw water intake to a point 5 miles upstream on Clinch Mountain, WQS Section 2i (TC13).	4A	Escherichia coli (E. coli)		2006	L	3.29
VAS-P06R_BUG01A06 / Burgess Creek / South of Lebanon from Campbell Branch confluence to confluence with Big Cedar Creek, WQS Section 2i (TC13).	4A	Escherichia coli (E. coli)		2006	L	1.55
VAS-P06R_EKG01A06 / Elk Garden Creek / From Elk Garden to confluence with Big Cedar Creek upstream to the end of PWS segment, WQS Section 2i (TC13).	4A	Escherichia coli (E. coli)		2006	L	3.49
VAS-P06R_EKG01A10 / Elk Garden Creek / Enters Big Cedar Creek near Elk Garden to the north above Rosedale, WQS Section 2 (TC12).	4A	Escherichia coli (E. coli)		2012	L	8.08
VAS-P06R_LOO01A06 / Loop Creek / West of Corn Valley, from near Rt. 80 upstream to Elk Garden Creek confluence, WQS Section 2i (TC12).	4A	Escherichia coli (E. coli)		2006	L	2.59
VAS-P06R_LOO01B12 / Loop Creek / East of Lebanon from near Rt. 80, upstream to Sturgeon Branch confluence on the west side of Clinch Mountain (TC12).	4A	Escherichia coli (E. coli)		2012	L	3.98
Big Cedar Creek and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Im	paired	Size by Water Type:		,	,	31.07

Tennessee and Big Sandy River Basins

Fecal Coliform - Total	Impaire	d Size by Water Type	:			5.30
Big Cedar Creek and Tributaries Recreation			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
VAS-P06R_BCD02A02 / Big Cedar Creek / North of Lebanon, from Little Cedar Creek confluence to SR 640 bridge near Daughertys Cave, WQS Section 2 (TC13).	4A	Fecal Coliform		2004	L	1.10
VAS-P06R_BCD01A98 / Big Cedar Creek / From vicinity of Daughertys Cave downstream to confluence with Clinch River, WC Section 2 (TC06).	4A QS	Fecal Coliform		2006	L	4.20
Assessment Unit / Water Name / Location Desc.	Caus Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P06R-02-BAC Little Cedar Creek

Cause Location: This segment includes Little Cedar Creek from the western edge of Lebanon to the confluence with Big Cedar

Creek.

City / County: Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BLTL001.11 had a 72% exceedance rate of the E. coli water quality standard. Station

6BLTL003.31 had a 83% exceedance rate.

Escherichia coli (E. coli) - Total Impaired Size by Water Type:							
Little Cedar Creek Recreation			Estuary (Sq. Miles)		ervoir cres)	River (Miles)	
VAS-P06R_LTL01A12 / Little Cedar Creek / A Big Cedar Creek tributary east of Lebanon in Section 2 (TC13).	4A	Escherichia coli (E. coli)		2012	М	2.19	
VAS-P06R_LTL01A10 / Little Cedar Creek / Drains Lebanon, from the Campbell Branch confluence, Willis area, upstream to near SR 654, WQS Section 2 (TC13).	1 4A	Escherichia coli (E. coli)		2018	М	6.04	
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size	

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P06R-02-BEN Little Cedar Creek

Cause Location: Little Cedar Creek drains Lebanon from the Campbell Branch confluence, in the Willis area, upstream to near Rt.

654.

City / County: Russell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Probabilistic monitoring station 6BLTL003.31 was impaired based on VSCI scores of 48.45 and 51.86 in 2018.

Cause Cycle TMDL
First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P06R_LTL01A10 / Little Cedar Creek / Drains Lebanon, from 5A Benthic Macroinvertebrates 2020 L 6.04

the Campbell Branch confluence, Willis area, upstream to near SR 654, WQS Section 2 (TC13).

Bioassessments

Little Cedar Creek

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

6.04

Sources:

Loss of Riparian Habitat Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P07R-01-BAC Clinch River and Tributaries

Cause Location: This segment includes the mainstem from the Big Cedar Creek confluence downstream to the Dumps Creek

confluence. It also includes Thompson Creek from Coulwood to the confluence with The Clinch River and Weaver

Creek from the confluence with Hart Creek to the confluence with the Clinch River.

City / County: Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BCLN271.50 had a 33% exceedance of the E.coli standard. Station 6BTMP003.58 had a 66% exceedance of the E.coli water quality standard and station 6BWEA004.32 had a 50% exceedance of the E.coli standard.

	ause itego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P07R_CLN01A00 / Clinch River / Mainstem from Big Cedar Creek confluence downstream to Dumps Creek confluence at Carbo, WQS Section 2 (TC14).	4A	Escherichia coli (E. coli)		2006	M	14.10
VAS-P07R_TMP01A06 / Thompson Creek / From Coulwood to confluence with Clinch River at Artrip, WQS Section 2 (TC14).	4A	Escherichia coli (E. coli)		2006	M	4.45
VAS-P07R_TMP02A10 / Thompson Creek / Headwaters, west of Honaker downstream to just east of Coulwood parallel to N&W Railroad, WQS Section 2 (TC14).	4A	Escherichia coli (E. coli)		2012	M	3.40
VAS-P07R_WEA01A06 / Weaver Creek / From headwaters at Bradley Gap on Big A Mountain to confluence with Clinch River west of Artrip, WQS, Section 2 (TC14).	4A	Escherichia coli (E. coli)		2006	M	9.50
Clinch River and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:						

Sources:

Rural (Residential Areas) Source Unknown Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P07R-01-BEN Clinch River Tributaries

Cause Location: Thompson Creek from the confluence of an unnamed tributary east of Coulwood upstream 3.25 miles.

City / County: Russell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The biological station located at 6BTMP006.26 was impaired based on VSCI scores of 56.77 and 52.33 in 2008/2009.

Cycle TMDL

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		First Listed	Dev. Priority	Water Size
VAS-P07R_TMP02A10 / Thompson Creek / Headwaters, west of Honaker downstream to just east of Coulwood parallel to N&W Railroad, WQS Section 2 (TC14).	of 4A Benthic Macroinvertebrate Bioassessments	es	2010	L	3.40
Clinch River Tributaries Aguatic Life		Estuary (Sg. Miles)		ervoir res)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total		, - 4	(,	3.40

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P07R-02-BEN Mill Creek

Cause Location: A Clinch River tributary, from the headwaters on Copper Ridge to Pennus Hollow.

City / County: Russell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological monitoring station located at 6BMIF003.23 was impaired based on VSCI scores of 53.50 and 56.22.

Assessment Unit / Water Name / Location Desc.	Cause	e ory Cause Name		First Listed	Dev. Priority	Water Size
VAS-P07R_MIF01A10 / Mill Creek / A Clinch River tributary, fror headwaters on Copper Ridge to Pennus Hollow, WQS Section 2 (TC14).	m 5A	Benthic Macroinvertebrat Bioassessments	es	2014	Н	1.84
Mill Creek Aquatic Life			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total	Impaire	d Size by Water Type:				1.84

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P09L-01-HG Bark Camp Lake

Cause Location: This lake is also known as Corder Bottom Lake, located in Scott County.

City / County: Scott Co.
Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Three fish samples exceeded the Department of Environmental Quality's screening value for Mercury.

Cause Assessment Unit / Water Name / Location Desc. Cause Category C		Cycle TMDL First Dev. Listed Priority	Water Size
VAS-P09L_LSR01A02 / Bark Camp Lake / Also known as Corder 5A Mer Bottom Lake; DGIF owned Scott County (TC23).	cury in Fish Tissue	2010 L	41.06
Bark Camp Lake		Reservoir	River
Fish Consumption	(Sq. Miles)	(Acres)	(Miles)
Mercury in Fish Tissue - Total Impaired Siz	e by water Type:	41.06	

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-01-BAC Clinch River

Cause Location: This segment includes the mainstem of the Clinch River from the Guest River confluence downstream to Little

Stony Creek and from Little Stony Creek downstream to the Staunton Creek confluence, and from the Dumps Creek confluence downstream of the Lick Creek confluence, and from Lick Creek at St. Paul downstream to PWS

segment.

City / County: Russell Co. Scott Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM station located at 6BCLN237.09 had a 16% exceedance of the bacteria water quality standard. Station 6BCLN250.67 had a 35% exceedance of the e.coli WQS.

Assessment Unit / Water Name / Location Desc.	Caus Categ	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_CLN01A00 / Clinch River / Mainstem Clinch from Lit Stony Creek confluence north of Mill Island downstream, past Dungannon, to Staunton Creek confluence, WQS Section 2 (TC23)		Escherichia coli (E. col)	2012	М	5.99
VAS-P09R_CLN01A08 / Clinch River / Mainstem from Lick Cree confluence at Saint Paul downstream to PWS segment, near Craig Tunnel, WQS Section 2 (TC18).		Escherichia coli (E. col)	2014	M	3.31
VAS-P09R_CLN01B00 / Clinch River / Five miles of Clinch River mainstem above Carfax raw water intake, from Bull Run upstream near Craigen Tunnel, WQS Section 2a (TC18).		Escherichia coli (E. col)	2014	М	4.93
VAS-P09R_CLN02B08 / Clinch River / Mainstem from Guest Riv confluence at Bangor, downstream to confluence of Little Stony Creek near Mill Island, WQS Section 2 (TC22).	er 4A	Escherichia coli (E. col)	2014	М	5.45
Clinch River Estuary Recreation (Sq. Miles						River (Miles)
Escherichia coli (E. coli) - Total	Impaire	d Size by Water Type:				19.68
Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name						Water Size
VAS-P09R_CLN01A00 / Clinch River / Mainstem Clinch from Lit Stony Creek confluence north of Mill Island downstream, past Dungannon, to Staunton Creek confluence, WQS Section 2 (TC23)		Fecal Coliform		2004	М	5.99
Clinch River			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Recreation Fecal Coliform - Total	Impaire	d Size by Water Type:	(54. 141103)	(MC		5.99

Sources:

Rural (Residential Areas) Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-02-BAC Clinch River

Cause Location: The Clinch River mainstem from the Lick Creek confluence at Boody, upstream to an unnamed tributary at rivermile

259.68.

City / County: Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station at 6BCLN256.31 had a 30% exceedance of the bacteria water quality standard

Cycle TMDL
Cause
Cause
Assessment Unit / Water Name / Location Desc.
Category Cause Name

Cause First Dev. Water
Category Cause Name
Listed Priority Size
As-Pogr CLN01C00 / Clinch River / Clinch River mainstem

5A Escherichia coli (E. coli)
2012 M 4.21

VAS-P09R_CLN01C00 / Clinch River / Clinch River mainstem from Lick Creek confluence at Boody, upstream to unnamed tributary @ 259.68, Section 2a, x, includes Kiser Bend, site of Clinch River Steam Plant (TC16).

Clinch River
Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 4.21

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-03-BAC Staunton Creek & Fall Creek

Cause Location: This segment includes both Staunton and Fall Creek from their headwaters to their confluences with the Clinch

River.

City / County: Scott Co.
Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BFLC000.52 had a 41% exceedance of the E.coli water quality standard and stations 6BSUT001.71 and 6BSUT004.66 had a 17% and a 41% exceedance of the E.coli standard.

	Escherichia coli (E. coli) - To	otal Impaire	d Size by Water Type:				12.74
Staunton Creek & Recreation	Fall Creek			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
to Clinch River from	A02 / Staunton Creek & tributaries / Tribu Stone Mountain north of Buckner Ridge in Forest, east of Wood, WQS Section 2 (TC2)		Escherichia coli (E. coli)		2006	L	9.73
	NO2 / Fall Creek / Fall Creek from Beaver to Clinch River east of Dungannon, WQS Se		Escherichia coli (E. coli)		2006	L	3.01
Assessment Unit	/ Water Name / Location Desc.	Caus Catego	e Dry Cause Name		First Listed	TMDL Dev. Priority	Water Size

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-05-BAC Russell Creek

Cause Location: This segment includes the headwaters of Russell Creek downstream to the confluence with the Clinch River.

City / County: Russell Co. Scott Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BRUS001.25 had a 17% exceedance of the E.coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P09R_RUS01A06 / Russell Creek / Clinch River tributary near Shannon Tunnel, through Virginia City from Nancy Ridge, WQS

Section 2 (TC18).

Russell Creek
Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 5.23

Escherichia coli (E. coli)

5.23

2008

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-08-BAC Cowan Creek

Cause Location: This segment includes from Copper Ridge near Sunny Point at rivermile 2.7 to the confluence with Sinking Creek.

City / County: Scott Co.
Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

Station 6BCOC001.19 had a 17% exceedance of the E. coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

5A Escherichia coli (E. coli)

2018

4.15

VAS-P09R_COC01A02 / Cowan Creek / Cowan Creek from Copper Ridge near Sunny Point at 2.7 to confluence with Sinking Creek, WQS Section 2 (TC22).

Cowan Creek

Recreation

Estuary (Sq. Miles)

Reservoir (Miles)

River (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

4.15

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-09-BAC Ramey Branch

Cause Location: A Corder Branch tributary west of Flatwoods.

City / County: Scott Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Station 6ARAM002.32 had a 31% exceedance of the e.coli water quality standard.

Cause Cycle TMDL
First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P09R_RAM01A20 / Ramey Branch / Corder Branch tributary 4A Escherichia coli (E. coli) 2020 L 3.58

west of Flatwoods, WQS Section 2 (TC23).

Ramey Branch
Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 3.58

Sources:

Rural (Residential Areas) Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P10R-01-BAC Lick Creek and Tributaries

Cause Location: This segment includes the headwaters of Lick Creek and continues downstream to the confluence with the Clinch

River, it also includes Cigarette Hollow and Right Fork Lick Creek and Gravel Lick Creek.

City / County: Dickenson Co. Russell Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

Cycle TMDL

AWQM station located at 6BLCC006.75 had a 56% exceedance of the E.coli water quality standard, station 6BLCC002.84 had a 55% exceedance of the E.coli standard and station 6BLCC000.09 had a 42% exceedance of the E.coli water quality standard. Citizen monitoring station 6BGRV-BLT1-MRRP had a 75% exceedance of the e.coli water quality standard.

Catego	e ry Cause Name		First Listed	Dev. Priority	Water Size
4A)	2012	L	2.49
4A	Escherichia coli (E. coli)	2006	L	4.92
	Escherichia coli (E. coli)	2006	L	4.69
		Estuary (Sq. Miles)			River (Miles)
mpaired	Size by Water Type:				12.10
			Cycle First Listed	TMDL Dev. Priority	Water Size
4A	Fecal Coliform		2002	L	4.92
	Fecal Coliform		2002	L	4.69
4A	Fecal Coliform		2004	L	3.04
4A	Fecal Coliform		2004	L	1.14
		Estuary (Sg. Miles)			River (Miles)
mpaired	Size by Water Type:	()	V	-,	13.79
	Cause Catego 4A 4A 4A 4A 4A	AA Escherichia coli (E. coli AA Escherichia c	AA Escherichia coli (E. coli) 4A Fecal Coliform 4A Fecal Coliform 4A Fecal Coliform 4A Escherichia coli (E. coli) 4A Escherichia coli (E. coli) 4A Escherichia coli (E. coli) 4A Fecal Coliform 4A Estuary (Sq. Miles)	4A Escherichia coli (E. coli) 2006 Estuary (Sq. Miles) Resc (Accompanie) Resc (Acco	4A Escherichia coli (E. coli) 4A Escherichia coli (E. coli) 2006 L 4A Escherichia coli (E. coli) 2006 L Estuary (Sq. Miles) Cause Category Cause Name 4A Fecal Coliform 4A Fecal Coliform 2002 L Estuary (Sq. Miles) 4A Fecal Coliform 2004 L Estuary (Sq. Miles) Reservoir (Acres)

Sources:

Rural (Residential Areas) Septage Disposal Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P10R-01-BEN Lick Creek and Tributaries

Cause Location: This segment includes the headwaters of Lick Creek and continues downstream to the confluence with the Clinch

River, it also includes Cigarette Hollow, Right Fork Lick and Laurel Branch.

City / County: Dickenson Co. Russell Co. Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

Biological stations located at 6BLCC000.09, 6BLCC000.65 and 6BLCC005.99 were all impaired based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P10R_LCC01A98 / Lick Creek / Mainstem from unnamed tributary confluence at river mile 4.83, north of Sun, downstream to Clinch River confluence near Saint Paul, WQS Section 2 (TC17).	4A	Benthic Macroinvertebra Bioassessments	ates	2002	L	4.92
VAS-P10R_LCC02A02 / Lick Creek / Mainstem from headwaters south of Trammel, through Dante, downstream to unnamed tributary confluence at river mile 4.85, WQS Section 2 (TC17)		Benthic Macroinvertebra Bioassessments	ates	2002	L	4.69
VAS-P10R_LCR01A98 / Right Fork Lick Creek / Headwaters at Flint Gap downstream to Lick Creek confluence in Dante, WQS Section 2 (TC17).	4A	Benthic Macroinvertebra Bioassessments	ates	2004	L	3.04
VAS-P10R_LEL01A98 / Laurel Branch / Headwaters of Laurel Branch and Left Fork through West Dante community to Lick Creek confluence at Dante, WQS Section 2 (TC17).	4A	Benthic Macroinvertebra Bioassessments	ates	2004	L	5.52
VAS-P10R_XBM01A98 / Cigarette Hollow / Headwaters on Flat Top Ridge to Right Fork confluence, WQS Section 2 (TC19).	4A	Benthic Macroinvertebra Bioassessments	ates	2004	L	1.14
Lick Creek and Tributaries Aquatic Life			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:						

Sources:

Coal Mining Impacts from Abandoned Loss of Riparian Habitat Rural (Residential Areas)
Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: P10R-06-BAC Honey Branch

Cause Location: A Lick Creek tributary near Morefield, upstream to Honeycomb Branch, WQS Section 2.

City / County: Dickenson Co. Russell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

station 6BHON002.08 had a 23% exceedance of the E. coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P10R_HON01A14 / Honey Branch / A Lick Creek tributary near Morefield, upstream to Honeycomb Branch, WQS Section 2

(TC17).

Honey Branch
Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 2.89

Escherichia coli (E. coli)

2.89

2018

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-01-BEN Guest River and Tributaries

Cause Location: This segment begins at the confluence with Sepulcher Creek and extends downstream to the confluence with the

Clinch River and also includes Critical Fork, Bear Creek, and Selcer Branch.

City / County: Norton City Scott Co. Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

DEQ biological stations 6BGUE006.50 and 6BGUE016.54 were impaired based on VSCI scores. Probabilistic monitoring station 6BSEL001.81 was impaired based on VSCI scored. Non agency data for Critical Fork, Bear Creek indicated impairment based on VSCI scores.

	Cause			Cycle First	TMDL Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ry Cause Name		Listed	Priority	Size
VAS-P11R_BER02A00 / Bear Creek / Bear Creek from Town of Wise raw water intake downstream to Yellow Creek confluence, southeast of Wise, WQS Section 2 (TC20).	4A	Benthic Macroinvertebrat Bioassessments	tes	2014	L	3.09
VAS-P11R_CRI01A14 / Critical Fork / Guest River tributary, origin on Indian Mountain and confluence at Dixiana, WQS Section 2 (TC19).	n 4A	Benthic Macroinvertebrat Bioassessments	tes	2014	L	1.30
VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor, WQS Section 2 (TC21).	4A	Benthic Macroinvertebrat Bioassessments	tes	2014	L	4.15
VAS-P11R_GUE02A98 / Guest River / Mainstem from Bad Brand confluence south of Coeburn downstream to Crab Orchard Branch confluence, WQS Section 2 (TC21).	ch 4A	Benthic Macroinvertebrat Bioassessments	tes	2006	L	3.09
VAS-P11R_GUE03A06 / Guest River / Mainstem from Sepulcher Creek confluence at Addington (mile 26.21) downstream to the Parson Branch confluence, immediately upstream of the Rt. 23 bridge near Esserville, WQS Section 2 (TC19).	4A	Benthic Macroinvertebrat Bioassessments	tes	2006	L	2.62
VAS-P11R_GUE03A98 / Guest River / Mainstem from the Parson Branch confluence downstream to the Bad Branch confluence, WQS Section 2 (TC19/21).		Benthic Macroinvertebrat Bioassessments	tes	2006	L	16.78
VAS-P11R_GUE04A96 / Guest River / Mainstem from headwater near Fox Gap downstream to the confluence of Sepulcher Creek at Addington, WQS Section 2 (TC19)		Benthic Macroinvertebrat Bioassessments	tes	2006	L	8.94
VAS-P11R_SEL01A14 / Selcer Branch / Hurricane Creek tributar east of Wise, WQS Section 2 (TC21).	y 4A	Benthic Macroinvertebrat Bioassessments	tes	2014	L	2.05
VAS-P11R_XHW01A14 / Bear Creek tributary / South of Clinch Valley College, flows north from Gibson Cemetery area, WQS Section 2 (TC20).	4A	Benthic Macroinvertebrat Bioassessments	tes	2014	L	1.21
Guest River and Tributaries Aquatic Life			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total I	mpaired		(= 4:56)	(- 10	/	43.23
zonano macromontos sidos sidos continuitos i otali	paoc	. cc bya.cypo.				

Sources:

Coal Mining Impacts from Abandoned Rural (Residential Areas) Silviculture Activities

Mine Lands (Inactive)

Source Unknown Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-03-BAC Guest River and Bear Creek

Cause Location: This segment extends from the Guest River mainstem at the confluence with Crab Orchard Creek downstream to the confluence with the Clinch River and Bear Creek from the confluence with Yellow Creek confluence

downstream to the Guest River confluence and also includes Glade Creek and Yellow Creek.

City / County: Norton City Scott Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

DEQ AWQM station 6BBER001.14 had a 17% exceedance of the E.coli water quality standard and station 6BGUE000.23 had an 13% exceedance, station 6BGUE006.50 had a 17% exceedance, station 6BGUE013.71 had a 36% exceedance, station 6BGUE026.55 had a 30% exceedance, station 6BGLA000.18 had a 67% exceedance, and station 6BYLO001.50 had a 41% exceedance of the e. coli water quality standard. Station 6BUTRR000.55-UTRR had a 29% exceedance of the e.coli WQS.

Assessment Unit / Water Name / Location Desc. C VAS-P11R_BER01A98 / Bear Creek / Bear Creek from Yellow		e rry Cause Name Escherichia coli (E. coli)		First Listed 2010	Dev. Priority M	Water Size 1.94
Creek confluence downstream to the Guest River confluence west of Ramsey, WQS Section 2m (TC20).						
VAS-P11R_GLA01A14 / Glade Creek / Yellow Creek tributary, Town of Wise, WQS Section 2 (TC20)	4A	Escherichia coli (E. coli)		2014	М	1.90
VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor, WQS Section 2 (TC21).	4A	Escherichia coli (E. coli)		2004	М	4.15
VAS-P11R_GUE02A98 / Guest River / Mainstem from Bad Branch confluence south of Coeburn downstream to Crab Orchard Branch confluence, WQS Section 2 (TC21).	4A	Escherichia coli (E. coli)		2006	М	3.09
VAS-P11R_GUE03A06 / Guest River / Mainstem from Sepulcher Creek confluence at Addington (mile 26.21) downstream to the Parson Branch confluence, immediately upstream of the Rt. 23 bridge near Esserville, WQS Section 2 (TC19).	4A	Escherichia coli (E. coli)		2012	М	2.62
VAS-P11R_GUE03A98 / Guest River / Mainstem from the Parson Branch confluence downstream to the Bad Branch confluence, WQS Section 2 (TC19/21).	4A	Escherichia coli (E. coli)		2012	М	16.78
VAS-P11R_GUE04A96 / Guest River / Mainstem from headwaters near Fox Gap downstream to the confluence of Sepulcher Creek at Addington, WQS Section 2 (TC19)	4A	Escherichia coli (E. coli)		2012	М	8.94
VAS-P11R_SEP01A98 / Sepulcher Creek / Headwaters at Glamorgan to Guest River confluence near Addington, WQS Section 2 (TC19).	4A	Escherichia coli (E. coli)		2018	M	2.92
VAS-P11R_YLO01A98 / Yellow Creek / Mainstem from headwaters at Berry Chapel, east of Wise, to Bear Creek confluence, WQS Section 2 (TC20).	4A	Escherichia coli (E. coli)		2014	М	3.16
Guest River and Bear Creek			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Recreation Escherichia coli (E. coli) - Total Im	paired	d Size by Water Type:	(Oq. Miles)	(AC	neoj	45.50
	Cause	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Tennessee and Big Sandy River Basins

VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor, WQS Section 2 (TC21).

4A Fecal Coliform

2002

M

4.15

Guest River and Bear Creek

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Fecal Coliform - Total Impaired Size by Water Type:

4.15

Sources:

Recreation

Rural (Residential Areas)

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-03-PCB Guest River and Bear Creek

Cause Location: This segment begins at the confluence with Parson's Branch and continues downstream to the confluence with the

Clinch River and Bear Creek from the Yellow Creek confluence downstream to the Guest River confluence.

City / County: Norton City Wise Co.

Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A

Sediment and Fish Tissue stations located at 6BGUE020.37, 6BGUE014.49 and 6BGUE009.33 indicated levels of polychlorinated biphenyls (PCBs) in carp that exceeded DEQ's screening value for PCBs. Sediment and Fish Tissue stations located at 6BGUE001.14 and 6BGUE006.45 found PCB levels that exceeded the Virginia Department of health's level of concern. PCBs were detected in carp and sediment at station 6BBER001.14.

_	Caus atego	e rry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_BER01A98 / Bear Creek / Bear Creek from Yellow Creek confluence downstream to the Guest River confluence west of Ramsey, WQS Section 2m (TC20).	5A	PCBs in Fish Tissue		2004	L	1.94
VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor, WQS Section 2 (TC21).	5A	PCBs in Fish Tissue		2004	L	4.15
VAS-P11R_GUE02A98 / Guest River / Mainstem from Bad Branch confluence south of Coeburn downstream to Crab Orchard Branch confluence, WQS Section 2 (TC21).	5A	PCBs in Fish Tissue		2006	L	3.09
VAS-P11R_GUE03A98 / Guest River / Mainstem from the Parson Branch confluence downstream to the Bad Branch confluence, WQS Section 2 (TC19/21).	5A	PCBs in Fish Tissue		2006	L	16.78
Guest River and Bear Creek			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Fish Consumption PCBs in Fish Tissue - Total Im	paire	d Size by Water Type:	· ' /	(/ 10	. 55,	25.96

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-05-BAC **Crab Orchard Creek**

Cause Location: This segment extends from the headwaters downstream to the Guest River confluence.

City / County: Wise Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BCRA000.31 had a 42% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Size 2.75 VAS-P11R_CRA01A98 / Crab Orchard (Branch) Creek / 4A Escherichia coli (E. coli) 2006

Headwaters south of Little Tom Tunnel to Guest River confluence, south of Crab Orchard, WQS Section 2 (TC21)

Crab Orchard Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 2.75

Sources:

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-05-BEN Eastland Creek

Cause Location: This segment of Eastland Creek includes from the headwaters downstream to the confluence with Clear Creek.

City / County: Wise Co.
Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A Station 6BEAS000.07 was impaired based on VSCI scores of 59 and 29.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e rry Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_EAS01A06 / Eastland Creek / Clear Creek tributary south of Norton in Jefferson National Forest, WQS Section 2 (TC1)		Benthic Macroinvertebrates Bioassessments	2010	L	2.00

Eastland Creek

Aquatic Life

Estuary (Sq. Miles)

Reservoir River (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

2.00

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-06-BAC Little Tom's Creek

Cause Location: This segment includes the headwaters and continues downstream to the Tom's Creek confluence.

City / County: Wise Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM station located at 6BLTF000.68 had a 58% exceedance of the E.coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size	
VAS-P11R_LTF01A98 / Little Tom's Creek / From origin on Stone 4A Escherichia coli (E. coli Mountain through Banner to Tom's Creek confluence in Coeburn, WQS Section 2 (TC21).)	2006	L	4.79	
Little Tom's Creek Recreation	Estuary (Sq. Miles)		ervoir res)	River (Miles)	
Escherichia coli (E. coli) - Total Impaired Size by Water Type:					
Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size	
VAS-P11R_LTF01A98 / Little Tom's Creek / From origin on Stone 4A Fecal Coliform Mountain through Banner to Tom's Creek confluence in Coeburn, WQS Section 2 (TC21).		2004	L	4.79	
Little Tom's Creek Recreation	Estuary (Sq. Miles)		ervoir res)	River (Miles)	
Fecal Coliform - Total Impaired Size by Water Type:				4.79	

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-08-BAC Toms Creek

Cause Location: This segment extends from the headwaters of Toms Creek downstream to the Guest River confluence.

City / County: Wise Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

 $The AWQM \ stations \ located \ at \ 6BTMS000.35 \ and \ 6BTMS001.51 \ had \ a \ 50\% \ and \ a \ 17\% \ exceedance \ of \ the \ E.coli \ water \ quality$

Cycle TMDI

standard.

Escherichia coli (E. coli) - Total Im	npaire	d Size by Water Type:				12.60
Toms Creek Recreation			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
VAS-P11R_TMS02A00 / Toms Creek & tributaries / Upper Toms Creek from Coeburn's raw water intake to its headwaters on Sandy Ridge including tributaries, WQS Section 2f.	4A	Escherichia coli (E. coli)		2006	L	6.25
VAS-P11R_TMS01A98 / Toms Creek / Lower mainstem from raw water intake downstream to the Guest River confluence near Riverview, WQS Section 2 (TC21).	4A	Escherichia coli (E. coli)		2006	L	6.35
Assessment Unit / Water Name / Location Desc.	Cause	e ry Cause Name		First Listed	Dev. Priority	Water Size

Sources:

Rural (Residential Areas) Septage Disposal Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-12-PH Mill Creek

Cause Location: Pine Camp Creek tributary from Stone Mountain in Jefferson National Forest south of Riverview.

City / County: Norton City Scott Co. Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5A

Station 6BMIA000.36 had 5 of 15 pH measurements that did not meet water quality standards.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

5A pH

VAS-P11R_MIA01A08 / Mill Creek / Pine Camp Creek tributary from Stone Mountain in Jefferson National Forest south of Riverview

(TC21).

Mill Creek
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 2.24

2.24

2020

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P12R-01-BEN Bark Camp Branch

Cause Location: This segment begins at the headwaters, includes the tributary, and continues downstream to the Stony Creek

confluence.

City / County: Scott Co. Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

DEQ biological station 6BBAR000.97 was impaired based on the VSCI score. United States Forest Service (USFS) monitoring

station 9150 indicated slight impairment.

Cycle **TMDL** First Dev. Cause Water Assessment Unit / Water Name / Location Desc. Category Cause Name Listed **Priority** Size VAS-P12R_BAR01A02 / Bark Camp Branch & tributaries / Benthic Macroinvertebrates 2004 3.07 Bioassessments

VAS-P12R_BAR01A02 / Bark Camp Branch & tributaries / Headwaters and tributary from Osborne Rock on Stone Mountain downstream to Stony Creek confluence in Glades Wildlife Management Area, WQS Section 2 (TC24).

Bark Camp Branch

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

3.07

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Atmospheric Deposition - Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P12R-01-PH Bark Camp Branch

Cause Location: This segment begins at the headwaters, includes the tributary, and continues downstream to the Stony Creek

confluence.

City / County: Scott Co. Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5A

The biological station 6BBAR000.97 found that pH did not meet water quality standards.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

5A pH

2010

M

3.07

VAS-P12R_BAR01A02 / Bark Camp Branch & tributaries / Headwaters and tributary from Osborne Rock on Stone Mountain downstream to Stony Creek confluence in Glades Wildlife Management Area, WQS Section 2 (TC24).

Bark Camp Branch
Aquatic Life

Estuary (Sq. Miles)
Reservoir (Miles)

PH - Total Impaired Size by Water Type:

3.07

Sources:

Atmospheric Deposition - Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P12R-02-BEN **Devil Fork**

Cause Location: This segment begins at the headwaters of Devil Fork and continues downstream to the confluence with Straight

City / County: Scott Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

DEQ biological station 6BDEV000.07 was impaired based on the VSCI score of 34 and United States Forest Service

monitoring station 9131 was also impaired.

Assessment Unit / Water Name / Location Desc.

Cause Category Cause Name

TMDL First Dev. Water Listed **Priority** Size

Cycle

Estuary

(Sq. Miles)

VAS-P12R_DEV01A02 / Devil's Fork / Devil Fork is a tributary to Straight Fork in Jefferson National Forest, north of Stone Mountain located on the East Stone Gap USGS Quad Map, WQS Section 2, DGIF vi (TC24).

Benthic Macroinvertebrates Bioassessments

2006 4.40

Devil Fork **Aquatic Life**

Reservoir River (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

4.40

Sources:

Atmospheric Deposition -Acidity

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P12R-02-pH Devil Fork

Cause Location: Devil Fork is a tributary to Straight Fork in Jefferson National Forest, north of Stone Mountain.

City / County: Scott Co.
Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5A

The DEQ Biological monitoring station 6BDEV000.07 found that pH did not meet water quality standards.

Cycle **TMDL** First Dev. Water Cause Listed **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-P12R_DEV01A02 / Devil's Fork / Devil Fork is a tributary to 2014 4.40 5A pH Μ

Straight Fork in Jefferson National Forest, north of Stone Mountain located on the East Stone Gap USGS Quad Map, WQS Section 2, DGIF vi (TC24).

Devil Fork

Aquatic Life

Estuary (Sq. Miles)

PH - Total Impaired Size by Water Type:

River (Miles)

Acres

4.40

Sources:

Atmospheric Deposition - Source Unknown Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P13R-02-PCB Stock Creek

Cause Location: From stream mile 4.56 downstream to the Clinch River confluence at Clinchport.

City / County: Scott Co. Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A

AWQM and sediment/fish tissue station located at 6BSTO004.56 had one fish that exceeded the DEQ screening value for Hg.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 5A PCBs in Fish Tissue 4.78 2004

VAS-P13R_STO01A00 / Stock Creek / From stream mile 4.56, near Sunbright, downstream to the Clinch River confluence at

Clinchport, WQS Section 2 (TC26).

Stock Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Fish Consumption**

PCBs in Fish Tissue - Total Impaired Size by Water Type: 4.78

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P13R-03-BAC Clinch River, Cove Creek and Stock Creek

Cause Location: This segment includes the mainstem Clinch River from Copper Creek upstream to the Cove Creek confluence, Lower Cove Creek from its confluence with Millstone Branch to the Clinch River, and Stock Creek from the

impoundment east of Sunbright downstream to the Clinch River confluence.

City / County: Scott Co.
Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BCOV001.68 had a 25% exceedance of the E.coli standard and station 6BSTO000.45 had a 33% exceedance and station 6BSTO004.56 has a 25% exceedance station 6B202.70 had a 25% exceedance, station 6BCLN206.70 had a 17% exceedance, and station 6BCLN213.02 had a 25% exceedance of the E. coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name	Cycl Firs Liste	t Dev.	Water Size
VAS-P13R_CLN01A02 / Clinch River / Mainstem Clinch River from 4A Escherichia coli (Ecopper Creek confluence near Speers Ferry downstream to the Tennessee state line near Shelby Creek, WQS Section 2 (TC33).	E. coli) 2008	3 M	9.63
VAS-P13R_CLN02A02 / Clinch River / Mainstem Clinch River from 4A Escherichia coli (Ecopper Creek confluence upstream to Cove Creek confluence near Starnes Slant, WQS Section 2 (TC27).	E. coli) 2014	4 M	13.01
VAS-P13R_CLN03A02 / Clinch River / Mainstem Clinch River from 4A Escherichia coli (EStony Creek confluence near Fort Blackmore downstream to Cove Creek confluence, WQS Section 2 (TC27).	E. coli) 2020) L	3.45
VAS-P13R_COV01B08 / Cove Creek / Lower Cove Creek from its 4A Escherichia coli (Econfluence with Millstone Branch to confluence with Clinch River north of Starnes Slant (TC25).	E. coli) 2008	3 M	7.13
VAS-P13R_STO01A00 / Stock Creek / From stream mile 4.56, near Sunbright, downstream to the Clinch River confluence at Clinchport, WQS Section 2 (TC26).	E. coli) 2008	3 M	4.78
VAS-P13R_STO02A98 / Stock Creek / From the impoundment east of Sunbright downstream to stream mile 4.56, WQS Section 2 (TC26).	E. coli) 2014	1 M	0.54
Clinch River, Cove Creek and Stock Creek Recreation	- · · · · · · · · · · · · · · · · · · ·	eservoir Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water T	ype:		38.54

Sources:

Sewage Discharges in Unsewered Areas Source Unknown

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P14R-01-BAC Copper Creek and Tributaries

Cause Location: This segment extends from just above Dickensonville downstream to the Obeys Creek confluence, the lower most

segment of Valley Creek that confluences with Copper Creek and Moll Creek from the headwaters to the confluence with Copper Creek and tributaries. The lower mainstem of Amos Branch from south of Crackers Neck downstream to the Copper Creek confluence and Obeys Creek from 2.5 miles above the Copper Creek confluence

upstream to the headwaters.

City / County: Russell Co. Scott Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BCOP047.75 had a 41% exceedance of the E.coli water quality standard, station 6BCOP052.77 had a 50% exceedance, 6BCOP023.91 had a 17% exceedance, 6BVAL000.25 had a 50% exceedance, 6BMOL000.03 had a 66% exceedance, 6BMOL003.98 had a 83% exceedance of the E. coli water quality standard. Station 6BPTR000.02 had a 41% exceedance of the E.coli water quality standard. Station 6BAMO002.28 had a 42% exceedance and station 6BOBE005.56 had a 50% exceedance of the e.coli water quality standard.

	Cause			Cycle First	TMDL Dev.	Water
Assessment Unit / Water Name / Location Desc.	atego	ry Cause Name	L	₋isted	Priority	Size
VAS-P14R_AMO02A02 / Amos Branch / Headwaters on Copper Ridge, north of Crackers Neck, WQS Section 2 (TC29).	4A	Escherichia coli (E. coli)		2020	L	1.34
VAS-P14R_COP02A02 / Copper Creek / From the Valley Creek confluence upstream to the Grassy Creek confluence, WQS Section 2 (TC29).	4A	Escherichia coli (E. coli)		2014	М	21.25
VAS-P14R_COP02B08 / Copper Creek / From the Grassy Creek confluence upstream to beginning of WQS Class V waters (TC28).	4A	Escherichia coli (E. coli)		2008	M	10.01
VAS-P14R_COP03A02 / Copper Creek / Copper Creek from mile 52.5 through Dickensonville to 56.8, WQS Section 2, vi (TC28).	4A	Escherichia coli (E. coli)		2008	M	4.53
VAS-P14R_COP03A08 / Copper Creek / From Valley Creek confluence downstream to Obeys Creek confluence (TC30).	4A	Escherichia coli (E. coli)		2014	М	7.71
VAS-P14R_MOL01A08 / Moll Creek & tributaries / From Copper Creek upstream, to second tributary, includes Porter Hollow (TC28).	4A	Escherichia coli (E. coli)		2008	М	2.78
VAS-P14R_MOL01B10 / Moll Creek & tributaries / Headwaters and tributaries, WQS Section 2 (TC28)	4A	Escherichia coli (E. coli)		2014	М	9.61
VAS-P14R_OBE02A02 / Obeys Creek / From 2.5 miles above Copper Creek confluence upstream to headwaters on Copper Ridge, WQS Section 2 (TC30).	4A	Escherichia coli (E. coli)		2020	L	5.50
VAS-P14R_PTR01A14 / Porter Hollow / Moll Creek tributary, WQS Section 2 (TC28).	4A	Escherichia coli (E. coli)		2014	М	1.84
VAS-P14R_VAL01A02 / Valley Creek, lower / Lower segment, from near Farley Chapel to confluence with Copper Creek, WQS Section 2 (TC29).	4A	Escherichia coli (E. coli)		2008	M	1.04
Copper Creek and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Im	paired	d Size by Water Type:				65.61

Sources:

Grazing in Riparian or Shoreline Zones

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P14R-02-BEN Blackoak Branch Tributary

Cause Location: This segment is north of Spivey Mill parallel to Route 665.

City / County: Scott Co.
Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological station located at 6BXGD000.01 was impaired based on VSCI scores of 49.16 and 43.38 in 2009.

AS-P14R_XGD01A12 / Blackoak Branch tributary / North of fanville School flows from Copper Creek Knobs (TC30).	5A Benthic Macroinvertebout Bioassessments	rates	2012	Н	0.76
Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P14R-03-BEN **Obeys Creek**

Cause Location: This segment of Obeys Creek includes from the headwaters downstream to just north of Addington Store.

City / County: Scott Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A Station 6BOBE005.85 is impaired based on a VSCI score of 43.3 in 2014.

Cycle **TMDL** First Dev. Water Cause Listed **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name

VAS-P14R_OBE02A02 / Obeys Creek / From 2.5 miles above Copper Creek confluence upstream to headwaters on Copper Ridge,

Benthic Macroinvertebrates Bioassessments

2020 5.50

Obeys Creek

WQS Section 2 (TC30).

Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

5.50

Size

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P15R-00-BAC North Fork Clinch River

Cause Location: This segment includes the upper mainstem from 5 miles above the Duffield raw water intake at Jasper. It also includes from the Fraley Branch confluence and extends downstream to the Tennessee political boundary and

includes Drakes Branch, a North Fork Clinch River tributary near Pattonsville.

City / County: Lee Co. Scott Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station located at 6BNFC010.65 had a 42% exceedance of the E.coli water quality standard, station 6BNFC018.68 had a 33% exceedance, station 6BNFC003.80 had a 42% exceedance, station 6BNFC022.47 had a 17% exceedance, and station 6BDAK001.71 had a 25% exceedance of the E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P15R_DAK01A10 / Drakes Branch / A North Fork Clinch tributary, south of Pattonsville, WQS Section 2 (TC32).	4A	Escherichia coli (E. coli))	2014	М	2.46
VAS-P15R_NFC01A00 / North Fork Clinch River / Upper mainstem from 5 miles above Duffield raw water intake at Jasper, WQS Section 2d (TC31).	4A	Escherichia coli (E. coli)	2018	М	4.55
VAS-P15R_NFC01B00 / North Fork Clinch River / Mainstem from Pattonsville Branch confluence downstream to Cox Branch confluence, WQS Section 2 (TC32).	4A	Escherichia coli (E. coli))	2008	M	7.89
VAS-P15R_NFC01B08 / North Fork Clinch River / Mainstem from Fraley Branch confluence downstream to the Pattonsville Branch confluence (TC31).	4A	Escherichia coli (E. coli))	2008	М	3.51
VAS-P15R_NFC01C02 / North Fork Clinch River / Mainstem from the Cox Branch confluence near Fairview downstream to Tennessee state line near Dona, WQS Section 2 (TC32).		Escherichia coli (E. coli)	2010	М	5.73
VAS-P15R_NFC02A10 / North Fork Clinch River / South of Duffield downstream to Fraley Branch confluence, WQS Section 2 (TC31).	4A	Escherichia coli (E. coli))	2018	М	2.77
North Fork Clinch River			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total Ir	npaire	d Size by Water Type:				26.91
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P15R_NFC01C02 / North Fork Clinch River / Mainstem from the Cox Branch confluence near Fairview downstream to Tennesses state line near Dona, WQS Section 2 (TC32).		Fecal Coliform		2002	М	5.73
North Fork Clinch River			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Fecal Coliform - Total Ir	npaire	d Size by Water Type:				5.73
Sources:						

Rural (Residential Areas)

Sewage Discharges in Source Unknown Unrestricted Cattle Access Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P15R-01-BEN Dry Branch

Cause Location: North Fork Clinch tributary, north of Duffield.

City / County: Lee Co. Scott Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological monitoring station at 6BDRA001.07 was impaired based on a VSCI score of 46.21.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 3.22 VAS-P15R_DRA01A08 / Dry Branch / North Fork Clinch tributary, 2018 Benthic Macroinvertebrates Bioassessments north of Duffield, WQS Section 2d (TC31). Dry Branch Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 3.22

Sources:

Rural (Residential Areas) Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P16R-01-BAC Blackwater Creek

Cause Location: This segment includes the Blackwater Creek mainstem from the East Fork Blackwater Creek confluence

downstream to the Tennessee political boundary and the East Fork Blackwater Creek mainstem from the

Confluence of North Fork Blackwater Creek to the Blackwater Creek confluence.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM station located at 6BBKW005.82 had a 41% exceedance of the E.coli water quality standard. Station 6BBCD001.05 had a 17% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location De	Cause Sac. Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
/AS-P16R_BCE01A00 / East Fork Blackwater Cree Blackwater Creek mainstem from the confluence of N Blackwater Creek to the Blackwater Creek confluence 2 (TC34).	lorth Fork	i)	2016	L	1.93
/AS-P16R_BKW01A02 / Blackwater Creek / Black nainstem from East Fork Blackwater Creek confluence o Tennessee state line, WQS Section 2 (TC34).	,	i)	2008	L	2.09
Blackwater Creek		Estuary	Res	ervoir	River
Diackwater Oreek		Lituary	1103	CIVOII	Rivei
Recreation		(Sq. Miles)		cres)	(Miles)
Recreation	E. coli) - Total Impaired Size by Water Type	(Sq. Miles)			
Recreation	Cause	(Sq. Miles)			(Miles)
Recreation Escherichia coli (E	Cause Ssc. Category Cause Name Cause Name Cause Name Cause Name	(Sq. Miles)	Cycle First	TMDL Dev.	(Miles) 4.02 Water Size
Assessment Unit / Water Name / Location De /AS-P16R_BKW01A02 / Blackwater Creek / Blackmainstem from East Fork Blackwater Creek confluence	Cause Ssc. Category Cause Name Cause Name Cause Name Cause Name	(Sq. Miles)	Cycle First Listed 2004	TMDL Dev. Priority	(Miles) 4.02 Water Size
Assessment Unit / Water Name / Location De /AS-P16R_BKW01A02 / Blackwater Creek / Blackmainstem from East Fork Blackwater Creek confluence o Tennessee state line, WQS Section 2 (TC34).	Cause Ssc. Category Cause Name Cause Name Cause Name Cause Name	(Sq. Miles)	Cycle First Listed 2004	TMDL Dev. Priority L	(Miles) 4.02 Water Size 2.09

Sources:

Septage Disposal Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-00-BEN Dark Hollow

Cause Location: This segment is a Powell River tributary south of Appalachia.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Station 6BDAR000.26 was impaired based on VSCI scores of 48 and 54 in 2011.

Cycle **TMDL** First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-P17R_DAR01A02 / Dark Hollow / A Powell River tributary 2004 1.40 Benthic Macroinvertebrates Bioassessments south of Appalachia and north of Little Stone Mountain, WQS Section 1 (TP04).

Dark Hollow
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

1.40

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-00-PH **Dark Hollow**

Cause Location: This segment is a Powell River tributary south of Appalachia.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5A

The biological monitoring station located at 6BDAR000.26 resulted in low VSCI scores. 2 of 2 pH measurements failed to meet

water quality standards.

Cycle **TMDL** First Dev. Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name 5A pH 2012 Н 1.40

VAS-P17R_DAR01A02 / Dark Hollow / A Powell River tributary south of Appalachia and north of Little Stone Mountain, WQS Section

1 (TP04).

Dark Hollow **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** pH - Total Impaired Size by Water Type: 1.40

Sources:

Atmospheric Deposition -Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-01-BAC Callahan Creek

Cause Location: This segment includes the mainstem of Callahan Creek from above Appalachia at Possum Trot Hollow downstream

to confluence with Preacher Creek.

City / County: Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM station located at 6BCAL003.19 had a 64% exceedance and station 6BCAL001.57 had a 36% exceedance of the

Cycle TMDL

E.coli standard.

Assessment Halfe / Water Name / Landing Day	Cause			First	Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ry Cause Name		Listed	Priority	Size
VAS-P17R_CAL01A98 / Callahan Creek / Lower mainstem from the Preacher Creek confluence at Andover, downstream to the confluence with Powell River in Appalachia, WQS Section 1 (TP03).		Escherichia coli (E. coli)		2008	L	1.68
VAS-P17R_CAL01B04 / Callahan Creek / Above Appalachia from Possum Trot Hollow upstream of Stonega downstream to Preacher Creek confluence at Andover, WQS Section 1 (TP03).	4A	Escherichia coli (E. coli)	1	2006	L	3.63
Callahan Creek			Estuary	Res	ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total Ir	npaire	d Size by Water Type:				5.31
				Cycle	TMDL	
	Cause	Э		First	Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ry Cause Name		Listed	Priority	Size
VAS-P17R_CAL01B04 / Callahan Creek / Above Appalachia from Possum Trot Hollow upstream of Stonega downstream to Preacher Creek confluence at Andover, WQS Section 1 (TP03).	4A	Fecal Coliform		2004	L	3.63
Callahan Creek			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
		d Size by Water Type:				3.63

Sources:

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-01-BEN Callahan Creek and Tributaries

Cause Location: This segment includes the West Fork of Callahan Creek and the lower mainstem of Callahan Creek from the

Preacher Creek confluence downstream to the confluence with Powell River, Mud Lick Creek, Halls Branch, and an

unnamed tributary to Callahan Creek that flows from Ninemile Spur upstream of Stonega.

City / County: Norton City Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Sedimentation/Siltation /

Total Dissolved Solids (TDS) / 4A

The biological monitoring station located at 6BCAL000.03 was impaired based on VSCI scores. Non agency biological data from Appalachian Technical Services indicates impairment on West Fork Callahan Creek, Mud Lick Creek, Halls Branch and an unnamed tributary to Callahan Creek.

	Cause atego	e ry Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_CAL01A98 / Callahan Creek / Lower mainstem from the Preacher Creek confluence at Andover, downstream to the confluence with Powell River in Appalachia, WQS Section 1 (TP03).	4A	Benthic Macroinvertebrates Bioassessments	2002	L	1.68
VAS-P17R_CAL01B04 / Callahan Creek / Above Appalachia from Possum Trot Hollow upstream of Stonega downstream to Preacher Creek confluence at Andover, WQS Section 1 (TP03).	4A	Benthic Macroinvertebrates Bioassessments	2012	L	3.63
VAS-P17R_CAL01C14 / Callahan Creek / Origin is near Stonega Gap on Black Mountain, upstream of coal company guard shack, access limited, WQS Section 1 (TP03).	4A	Benthic Macroinvertebrates Bioassessments	2014	L	3.80
VAS-P17R_CLA01A14 / West Fork Callahan Creek / Bluff Spur drainage, WQS Section 1 (TP03).	4A	Benthic Macroinvertebrates Bioassessments	2014	L	2.53
VAS-P17R_HLS01A14 / Halls Branch / A tributary to Mud Lick Creek from Bluff Spur, north of Osaka, WQS Section 1 (TP03).	4A	Benthic Macroinvertebrates Bioassessments	2014	L	1.93
VAS-P17R_MIK01A06 / Mud Lick Creek / From Roda to confluence with Callahan Creek near Osaka, WQS Section 1 (TP03).	4A	Benthic Macroinvertebrates Bioassessments	2014	L	2.90
VAS-P17R_MIK02A14 / Mud Lick Creek / Sawmill Hollow, upstream of Roda, WQS Section 1 (TP03).	4A	Benthic Macroinvertebrates Bioassessments	2014	L	3.13
Callahan Creek and Tributaries Aquatic Life		Estuary (Sq. Mile		ervoir cres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Im	paired	d Size by Water Type:	, ,	,	19.60
	Cause atego	e ry Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_CAL01A98 / Callahan Creek / Lower mainstem from the Preacher Creek confluence at Andover, downstream to the confluence with Powell River in Appalachia, WQS Section 1 (TP03).	4A	Total Dissolved Solids (TDS)	2010	L	1.68
VAS-P17R_CAL01B04 / Callahan Creek / Above Appalachia from Possum Trot Hollow upstream of Stonega downstream to Preacher Creek confluence at Andover, WQS Section 1 (TP03).	4A	Total Dissolved Solids (TDS)	2012	L	3.63

Tennessee and Big Sandy River Basins

Callahan Creek and Tributaries River Estuary Reservoir (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Total Dissolved Solids (TDS) - Total Impaired Size by Water Type:

5.31

Sources:

Coal Mining Sewage Discharges in Silviculture Activities Surface Mining Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-02-BAC **Powell River**

Cause Location: This segment begins at the Benges Branch confluence and continues downstream to Roaring Fork and includes

the mainstem from Pigeon Creek downstream to Dakota Street in Big Stone Gap, river mile 177.53 and from the

Benges Branch confluence upstream to the Buckeye Branch confluence.

City / County: Norton City Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station located at 6BPOW180.62 had a 58% exceedance, 6BPOW179.20 had a 51% exceedance, station 6BPOW193.38 had a 75% exceedance and station 6BPOW194.75 had a 42% exceedance of the bacteria water quality standard.

Assessment Unit / Wa	ater Name / Location Desc. (Cause	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW01A94 / Branch confluence, 180.83	Powell River / Powell River from Roaring downstream to South Fork Powell River Big Stone Gap, river mile 177.53, WQS	•	Escherichia coli (E. coli)	2006	L	2.71
from Benges Branch conflu	Powell River / Mainstem Powell River uence upstream of Josephine downstream at Kent Junction, WQS Section 1 (TP02)		Escherichia coli (E. coli)	2010	L	5.46
Benges Branch confluence	Powell River / Powell River, from the upstream to the Buckeye Branch s Ridge, WQS Section 1 (TP02)	4A	Escherichia coli (E. coli)	2020	L	9.02
	Powell River / The mainstem of Powell from Pigeon Creek confluence to Roaring ection 1 (TP04)	4A	Escherichia coli (E. coli)	2008	L	1.00
Powell River				Estuary		ervoir	River
Recreation				(Sq. Miles)	(Ac	cres)	(Miles)
	Escherichia coli (E. coli) - Total In	npaire	d Size by Water Type:				18.19
Assessment Unit / Wa	ater Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
from Benges Branch conflu	Powell River / Mainstem Powell River uence upstream of Josephine downstream at Kent Junction, WQS Section 1 (TP02)		Fecal Coliform		2006	L	5.46
Powell River				Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Recreation	Food Coliform Total In		d Ciza by Water Type	(Sq. Miles)	(Ac	165)	,
	Fecal Coliform - Total In	ipaiie	J SIZE DY WAIEI TYPE.				5.46
Sources:							
Agriculture	Sanitary Sewer Overflows	Sewag	ge Discharges in	Wastes	from P	ets	

(Collection System Failures) **Unsewered Areas**

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-02-BEN Powell River

Cause Location: These segments include the headwaters of the mainstem of the Powell River, south of Divides Ridge to the Benges

Branch confluence; the mainstem at Appalachia, from the Pigeon Creek confluence to the Roaring Creek confluence; and the Powell River from the Roaring Branch confluence downstream to the South Fork Powell River

confluence.

City / County: Norton City Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The biological monitoring stations located at 6BPOW179.20, 6BPOW184.19 were impaired based on VSCI scores.

	Cause atego	e ry Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW01A94 / Powell River / Powell River from Roaring Branch confluence, 180.83, downstream to South Fork Powell River confluence in the Town of Big Stone Gap, river mile 177.53, WQS Section 1 (TP04).	4A	Benthic Macroinvertebrates Bioassessments	2002	L	2.71
VAS-P17R_POW01C02 / Powell River / Powell River, from the Benges Branch confluence upstream to the Buckeye Branch confluence, north of Rogers Ridge, WQS Section 1 (TP02)	4A	Benthic Macroinvertebrates Bioassessments	2014	L	9.02
VAS-P17R_POW02B06 / Powell River / Mainstem at Appalachia, from Pigeon Creek confluence upstream to Roaring Fork confluence at Kent Junction, WQS Section 1 (TP02/04).	4A	Benthic Macroinvertebrates Bioassessments	2010	L	5.70
VAS-P17R_POW03C14 / Powell River / Headwaters of the mainstem, south of Divides Ridge, WQS Section 1 (TP02).	4A	Benthic Macroinvertebrates Bioassessments	2014	L	1.57
Powell River		Estuary		ervoir	River
Aquatic Life		(Sq. Miles)	(Ac	res)	(Miles)
Benthic Macroinvertebrates Bioassessments - Total Imp	paire	d Size by Water Type:			19.00

Sources:

Agriculture Coal Mining Impacts from Abandoned Mountaintop Mining Mine Lands (Inactive)

Non-Point Source Rural (Residential Areas) Silviculture Activities Streambank

Surface Mining

Modifications/Destabilization

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-03-BEN Black Creek

Cause Location: This segment includes Black Creek and its tributaries from the impoundment downstream to the Powell River

confluence.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Alkalinity / 4A

Manganese / 4A

Benthic Macroinvertebrates Bioassessments / 4A

The segment is impaired based on the VSCI scores of 48.22 and 54.18 at station 6BBLK000.13.

Cycle **TMDL** First Dev. Cause Water Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 2010 VAS-P17R BLK01A96 / Black Creek / Black Creek and tributaries Alkalinity 3.11 from impoundment downstream to the Powell River confluence north of Blackwood, WQS Section 1 (TP02). **Black Creek** Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Alkalinity - Total Impaired Size by Water Type: 3.11 Cycle **TMDL** First Cause Dev. Water Listed **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Size Benthic Macroinvertebrates 2002 3.11 VAS-P17R BLK01A96 / Black Creek / Black Creek and tributaries from impoundment downstream to the Powell River confluence north Bioassessments of Blackwood, WQS Section 1 (TP02). Black Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 3.11 Cycle **TMDL** First Dev. Cause Water Category Cause Name Listed **Priority** Assessment Unit / Water Name / Location Desc. Size Manganese L VAS-P17R BLK01A96 / Black Creek / Black Creek and tributaries 2002 3.11 from impoundment downstream to the Powell River confluence north of Blackwood, WQS Section 1 (TP02). **Black Creek** Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Manganese - Total Impaired Size by Water Type: 3.11 Sources:

Draft 2020

Coal Mining

Impacts from Abandoned

Mine Lands (Inactive)

Coal Mining Discharges

(Permitted)

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-04-BEN Unnamed tributary to Callahan Creek

Cause Location: Flows from Ninemile Spur upstream of Stonega, WQS Section 1.

City / County: Norton City Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI

scores.

Cycle **TMDL** First Dev. Cause Water Category Cause Name Priority Assessment Unit / Water Name / Location Desc. Listed Size 5A Benthic Macroinvertebrates 2016 L 0.58 VAS-P17R XHO01A14 / Unnamed tributary to Callahan Creek. / Flows from Ninemile Spur upstream of Stonega, WQS Section 1 Bioassessments (TP03).

Unnamed tributary to Callahan Creek

Aquatic Life

Estuary Reservoir (Sq. Miles) (Acres)

(Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

0.58

River

Sources:

Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-07-BEN Pigeon Creek

Cause Location: This segment includes the headwaters of Pigeon Creek from Black Mtn, the KY line, through the Exeter community

downstream to the Laurel Creek confluence.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Biological monitoring stations located at 6BPIG003.55 AND 6BPIG005.20 were impaired based on the VSCI scores.

Cycle **TMDL** First Cause Dev. Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name 2012 VAS-P17R_PIG01B12 / Pigeon Creek / Headwaters from Little Benthic Macroinvertebrates 3 42 Black Mountain, the KY line, through the Exeter community Bioassessments downstream to the Laurel Fork confluence, WQS Section 1 (TP04). Pigeon Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 3.42

Sources:

Coal Mining Rural (Residential Areas) Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-09-BEN Roaring Fork and Potcamp Fork

Cause Location: This segment includes from the headwaters above the Roaring Fork community to the Powell River confluence at

Kent Junction, parallel to Route 603, including Potcamp Fork and Canepatch Creek.

City / County: Norton City Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological monitoring station located at 6BRIN000.31 was impaired based on VSCI scores of 49.15 and 27.84 and non agency biological monitoring data provided by Appalachian Technical Services indicates impairment on Potcamp Fork and Canepatch Creek.

	ause egor	y Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_CPH01A14 / Canepatch Creek / Roaring Fork tributary from Rogers Ridge, WQS Section 1 (TP01).	-	Benthic Macroinvertebra Bioassessments	ates	2014	L	8.72
VAS-P17R_POT01A14 / Potcamp Fork / A Roaring Fork tributary, segment is from headwaters downstream to Dunbar, WQS Section 1 (TP01).		Benthic Macroinvertebra Bioassessments	ates	2014	L	2.86
VAS-P17R_RIN01A00 / Roaring Fork / Lower mainstem from Roaring Fork community to the Powell River confluence at Kent Junction, WQS Section 1 (TP01).	-	Benthic Macroinvertebra Bioassessments	ates	2010	L	5.04
VAS-P17R_RIN01B14 / Roaring Fork / Headwaters on Black Mountain downstream to the Roaring Fork community, WQS Section 1 (TP01).	5A	Benthic Macroinvertebra Bioassessments	ates	2014	L	10.15
Roaring Fork and Potcamp Fork Aquatic Life			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impair	aired	Size by Water Type:	,	,	•	26.77

Sources:

Coal Mining Mountaintop Mining Silviculture Harvesting Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-11-BEN Powell River

Cause Location: This segment includes the mainstem Powell River from the Benges Branch confluence upstream of Josephine

downstream to the Roaring Fork confluence and from the Benges Branch confluence upstream to the Buckeye

Branch confluence.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological data provided by Appalachian Technical Services indicates impaired VSCI scores.

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Assessment Unit / Water Name / Location Desc.	Caus Catego	e Dry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW01B02 / Powell River / Mainstem Powell Rive from Benges Branch confluence upstream of Josephine downstre to Roaring Fork confluence at Kent Junction, WQS Section 1 (TP	am	Benthic Macroinvertebra Bioassessments	ates	2014	L	5.46
Powell River Aquatic Life			Estuary (Sq. Miles)		ervoir cres)	River (Miles)

5.46

Sources:

Mountaintop Mining Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-12-BEN Powell River

Cause Location: This segment includes the mainstem of the Powell River south of Appalachia from Pigeon Creek to the Roaring

Creek confluence

City / County: Norton City Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

This segment is bracketed by monitoring station 6BPOW179.20 with VSCI scores of 51.64 and 53.85 in 2007 and by

6BPOW184.19 with VSCI scores of 47.32 and 46.55 in 2007.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P17R_POW02C06 / Powell River / The mainstem of Powell River south of Appalachia from Pigeon Creek confluence to Roaring

5A Benthic Macroinvertebrates Bioassessments

2010 L 1.00

Creek confluence, WQS Section 1 (TP04)

Powell River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

1.00

Sources:

Coal Mining Impacts from Abandoned Rural (Residential Areas)

Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-13-BEN Looney Creek

Cause Location: This segment is a Powell River tributary west of Appalachia.

City / County: Norton City Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		First Listed	Dev. Priority	Water Size
VAS-P17R_LOC01A12 / Looney Creek / Powell River tributary west of Appalachia (TP04).	5A Benthic Macroi Bioassessmen		2014	L	6.04
VAS-P17R_PIG01A06 / Pigeon Creek / From Laurel Fork confluence to confluence with Powell River south of Appalachia, WQS Section 1 (TP04).	5A Benthic Macroi Bioassessmen		2014	L	2.50
Looney Creek Aquatic Life	Estuary (Sq. Miles)		ervoir eres)	River (Miles)	
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:					

Sources:

Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-14-PH Roaring Branch

Cause Location: North of Big Stone Gap from the headwaters near High Butte downstream to the confluence with the Powell River in

Big Stone Gap, WQS Section 1.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5A

73% of pH measurements failed to meet WQS at 6BRNN000.07.

Cycle TMDL
Cause
Cause
Assessment Unit / Water Name / Location Desc.
Category Cause Name
Cycle TMDL
First Dev. Water
Category Cause Name
Listed Priority Size
CAS-P17R RRN01A00 / Roaring Branch / North of Big Stone Gap 5A pH
2018 L 2.91

VAS-P17R_RRN01A00 / Roaring Branch / North of Big Stone Gap 5A pH from headwaters near High Butte downstream to the confluence with

Powell River in Big Stone Gap, WQS Section 1 (TP04).

Roaring Branch

Aquatic Life

PH - Total Impaired Size by Water Type:

Reservoir (Acres)

River (Miles)

River (Miles)

pri - rotal impalied Size by Water Typ

Sources:

Atmospheric Deposition - Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P18L-01-HG Big Cherry Reservoir

Cause Location: This reservoir is located east of East Stone Gap on Powell Mountain.

City / County: Wise Co.
Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Two largemouth bass samples exceeded the Virginia Department of Health's level of concern for Mercury.

Big Cherry Reservoir		Estuary Reservoir			River
VAS-P18L_PLL01L02 / Big Cherry Reservoir / East of East Gap on Powell Mountain in WQS Section 1c (TP05).	Stone 5A Mercury in Fish Tissue		2010	L	104.00
Assessment Unit / Water Name / Location Desc.	Cause Location Desc. Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Fish Consumption Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 104.00

Sources:

Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-01-BAC South Fork Powell River

Cause Location: This segment begins at the Big Cherry Reservoir and continues downstream to the confluence with the Powell

River.

City / County: Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

AWQM station located at 6BPLL006.38 had a 33% exceedance of the bacteria water quality standard.

Cycle **TMDL** First Dev. Cause Water Priority Listed Size Assessment Unit / Water Name / Location Desc. Category Cause Name VAS-P18R PLL02A00 / South Fork Powell River / From Big Escherichia coli (E. coli) 2012 L 6 45 Cherry Reservoir dam on Little Mountain downstream to Beaverdam Creek confluence southeast of East Stone Gap, WQS Section 1 (TP05). South Fork Powell River Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation Escherichia coli (E. coli) - Total Impaired Size by Water Type: 6.45 Cycle **TMDL**

Cycle TMDL

Cause

Cause

Assessment Unit / Water Name / Location Desc.

Cause

Category Cause Name

Listed Priority Size

VAS-P18R PLL02A00 / South Fork Powell River / From Big

4A Fecal Coliform

2004 L

6.45

Cherry Reservoir dam on Little Mountain downstream to Beaverdam Creek confluence southeast of East Stone Gap, WQS Section 1 (TP05).

South Fork Powell River

Recreation

Fecal Coliform - Total Impaired Size by Water Type:

Estuary (Sq. Miles)

Reservoir (Miles)

(Acres)

6.45

Sources:

Sewage Discharges in Unsewered Areas **Unrestricted Cattle Access**

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-01-BEN **South Fork Powell River**

Cause Location: This segment includes the mainstem, from Beaverdam Creek confluence downstream to the Butcher Fork

confluence at East Stone Gap.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

Biological monitoring stations 6BPLL002.55 and 6BPLL004.40 were impaired based on VSCI scores.

Cycle **TMDL** Dev. Cause First Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name Benthic Macroinvertebrates 4A

VAS-P18R PLL01A02 / South Fork Powell River / Mainstem from confluence of Beaverdam Creek downstream to Butcher Fork confluence at East Stone Gap, WQS Section 1 (TP05).

Bioassessments

2004 1.97

South Fork Powell River **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

1.97

Sources:

Loss of Riparian Habitat Sewage Discharges in **Unsewered Areas**

Unrestricted Cattle Access

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Tennessee and Big Sandy River Basins

Cause Group Code: P18R-02-BAC Butcher Fork

Cause Location: This segment includes the headwaters downstream to the South Fork Powell River confluence.

City / County: Wise Co.
Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

AWQM station located at 6BBUH000.76 had a 22% exceedance of the bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_BUH01A04 / Butcher Fork / From headwaters north of Buffalo Gap downstream to confluence with South Fork Powell River south of Big Stone Gap, WQS Section 1 (TP05).		Escherichia coli (E. coli)	2012	L	4.96
Butcher Fork Recreation			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Escherichia coli (E. coli) - Total In	npaire	d Size by Water Type:				4.96
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_BUH01A04 / Butcher Fork / From headwaters north of Buffalo Gap downstream to confluence with South Fork Powell River south of Big Stone Gap, WQS Section 1 (TP05).		Fecal Coliform		2004	L	4.96
Butcher Fork Recreation			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Fecal Coliform - Total In	npaire	d Size by Water Type:				4.96

Sources:

Sewage Discharges in Unsewered Areas

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-03-BAC South Fork Powell River

Cause Location: This segment includes the mainstem from the confluence of Beaverdam Creek, north of East Stone Gap,

downstream to the confluence with the Powell River at Three Forks in Big Stone Gap.

City / County: Wise Co.
Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

AWQM station at 6BPLL001.61 had a 43% exceedance and station 6BPLL004.24 had a 50% exceedance of the E. coli water

Cycle TMDL

quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e vry Cause Name		First Listed	Dev. Priority	Water Size
VAS-P18R_PLL01A02 / South Fork Powell River / Mainstem from confluence of Beaverdam Creek downstream to Butcher Fork confluence at East Stone Gap, WQS Section 1 (TP05).	m 4A	Escherichia coli (E. coli)		2010	L	1.97
VAS-P18R_PLL01A98 / South Fork Powell River / Mainstem from Butcher Fork confluence north of East Stone Gap downstream to confluence with Powell River at Three Forks in Big Stone Gap, WC Section 1 (TP05).		Escherichia coli (E. coli)		2010	L	3.83
South Fork Powell River			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Recreation			(Sq. Miles)	(AC	iles)	,
Escherichia coli (E. coli) - Total	Impaire	d Size by Water Type:				5.80

Sources:

Sewage Discharges in Unsewered Areas

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-04-BAC Beaverdam Creek

Cause Location: A South Fork Powell River tributary east of East Stone Gap, from the headwaters near Buffalo Gap downstream,

WQS Section 1.

City / County: Wise Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6BBEV000.17 had a 42% exceedance of the E. coli water quality standard.

Cycle **TMDL** First Dev. Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name Escherichia coli (E. coli) 2018 L 4.03 VAS-P18R BEV01A10 / Beaverdam Creek / A South Fork Powell 5A River tributary, east of East Stone Gap, from headwaters near

Buffalo Gap, downstream, WQS Section 1 (TP05).

Beaverdam CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 4.03

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P19R-01-BAC **Mud Creek**

Cause Location: This segment includes the mainstem from the Highway 58 crossing downstream to the Powell River confluence.

City / County: Lee Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

AWQM station located at 6BMDC000.33 had a 25% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 1.81 VAS-P19R_MDC01A10 / Mud Creek / A Powell River tributary 2010 Escherichia coli (E. coli) from Hwy 58 crossing to Powell River, east of Olinger, WQS Section 1 (TP06). Mud Creek

Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation Escherichia coli (E. coli) - Total Impaired Size by Water Type: 1.81

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P19R-01-BEN Powell River

Cause Location: This segment extends from confluence of Poor Valley Creek downstream to the Public Water Supply segment.

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Sedimentation/Siltation /

The biological station located at 6BPOW162.89 was impaired based on a VSCI score of 54. Recent data at 6BPOW166.97indicated the impairment continues with VSCI scores of 50.9 and 78.5 in 2013 and 44.6 and 78.2 in 2018.

Assessment Unit / Water Name / Location Desc.

Cause Category Cause Name

Cycle TMDL First Dev. Water Listed Priority Size

VAS-P19R_POW03A00 / Powell River / Near Dryden from confluence of Poor Valley Creek downstream to PWS segment in WQS Section 1 (TP06).

4A Benthic Macroinvertebrates Bioassessments 2004 L 6.62

Powell River

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

6.62

Sources:

Agriculture

Tennessee and Big Sandy River Basins

Cause Group Code: P19R-02-BEN Poor Valley Creek

Cause Location: This segment includes the headwaters of Poor Valley Creek downstream to its confluence with the Powell River.

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4C

This segment was miss-categorized in 2004. USFS monitored site 9120 and found a moderate impairment due to drought

conditions.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P19R_PVC01A02 / Poor Valley Creek / Powell River tributary 4C north of Dryden, from headwaters near Dalton Gap, WQS Section 1 (TP06).

Benthic Macroinvertebrates Bioassessments 2.82

Poor Valley Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

2.82

Sources:

Drought-related Impacts

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: P20L-01-HG Lake Keokee

Cause Location: This lake is located south of Exeter on Stone Mountain.

City / County: Lee Co.
Use(s): Fish Consumption

oco(o). Tion concampaon

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

A largemouth bass sample exceeded the Virginia Department of Health level of concern for Mercury and one fish tissue sampled exceeded the Department of Environmental Quality's screening value for Mercury.

Cause Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-P20L_PWL01L02 / Lake Keokee / This recreation 5A Mercury in Fish Tissue 2010 L 96.21

impoundment was constructed in 1975, South of Exeter on Stone Mountain WQS Section 1 (TP07).

Lake Keokee Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 96.21

Sources:

Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: P20L-01-TEMP Lake Keokee

Cause Location: This lake is located south of Exeter on Stone Mountain.

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5A

Lake monitoring station 6BPWL024.64 had 21% of temperature measurements exceed the water quality standard for Class V

waters.

Cycle TMDL
Cause
Assessment Unit / Water Name / Location Desc.

Cause
Category Cause Name
Cycle TMDL
First Dev. Water
Category Cause Name
Listed Priority Size
Category PWL01L02 / Lake Keokee / This recreation
Cycle TMDL
First Dev. Water
Category Cause Name
Listed Priority Size

VAS-P20L_PWL01L02 / Lake Keokee / This recreation impoundment was constructed in 1975, South of Exeter on Stone

Mountain WQS Section 1 (TP07).

Lake Keokee Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Temperature - Total Impaired Size by Water Type: 96.21

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-00-BEN Straight Creek and Tributaries

Cause Location: This segment includes not only the headwaters of Straight Creek downstream to the North Fork Powell confluence but also its tributaries including Bailey's Trace, Ely Creek, Lick Branch, Puckett Creek, and Stone Creek.

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The following DEQ biological stations were found to be moderately impaired: 6BSTA000.11, 6BSTA000.40, 6BSTA000.54, 6BSTA001.10, 6BSTA002.48, 6BSTA3.62, 6BSTC000.06, 6BSTC000.27 and 6BSTC003.27. A special study contracted by the Division of Mine Land Reclamation and the united States Corp of Engineers verified the benthic impairments of Lick Branch and Ely Creek.

	Cause atego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_BAI01A00 / Bailey's Trace & tributaries / Headwaters on Black Mountain downstream to Straight Creek confluence near St Charles, including Fawn Branch in WQS Section 1 (TP08).	4A	Benthic Macroinvertebra Bioassessments	tes	1996	L	4.69
VAS-P20R_ELC01A00 / Ely Creek & tributaries / Ely Creek and tributaries downstream to the confluence with Stone Creek in WQS Section 1 (TP08).	4A	Benthic Macroinvertebra Bioassessments	tes	1996	L	3.28
VAS-P20R_LCK01A00 / Lick Branch / Headwaters downstream to Puckett Creek confluence, WQS, Section 1 (TP08).	4A	Benthic Macroinvertebra Bioassessments	tes	1996	L	0.74
VAS-P20R_PCK01A00 / Puckett Creek & tributaries / A Straight Creek tributary from headwaters to mouth at Maness, including tributaries, west of St. Charles in WQS Section 1 (TP08).	4A	Benthic Macroinvertebra Bioassessments	tes	1996	L	5.37
VAS-P20R_SRA01A94 / Straight Creek / From headwaters on Little Black Mountain downstream to North Fork Powell confluence near Pockett in WQS Section 1 (TP08).	4A	Benthic Macroinvertebra Bioassessments	tes	1996	L	6.81
VAS-P20R_STC02A00 / Stone Creek & tributaries / Headwaters and tributaries downstream to the Ely Creek confluence, WQS Section 1 (TP08).	4A	Benthic Macroinvertebra Bioassessments	tes	1996	L	7.21
Straight Creek and Tributaries Aguatic Life			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Im	paired	d Size by Water Type:	,	`	,	28.10

Sources:

Acid Mine Drainage Coal Mining Impacts from Abandoned Sewage Discharges in Mine Lands (Inactive) Unsewered Areas

Silviculture Activities

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-01-BAC North Fork Powell River

Cause Location: This segment extends from the Straight Creek confluence, river mile 6.25, downstream to the Powell River

confluence and also includes the mainstem from the Payne Branch confluence downstream to the Wolf Harbor

confluence.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BPWL001.49 had a 27% exceedance, station 6BPWL004.10 had a 45% exceedance, and station 6BPWL006.02 had a 25% exceedance of the E.coli standard.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Nan	ا	Cycle TM First De isted Prio	v. Water
VAS-P20R_PWL01A00 / North Fork Powell River / From Straight Creek confluence near Pocket, river mile 6.25, through Pennington Gap, downstream to Powell River confluence west of Woodway, WQS Section 1 (TP09).	4A Escherichia co	li (E. coli)	2004 L	6.05
VAS-P20R_PWL03B02 / North Fork Powell River / Mainstem from Wolf Harbour Branch confluence downstream to confluence of Straight Creek near Pocket, WQS Section 1 (TP07).	n 4A Escherichia co	li (E. coli) 2	2020 L	2.98
North Fork Powell River		Estuary	Reservoir	River
Recreation Escherichia coli (E. coli) - Total Ir	mnaired Size by Wate	(Sq. Miles)	(Acres)	(Miles) 9.03
Escherichia coli (E. coli) - Total Impaired Size by Water Type:				

Sources:

Septage Disposal

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-01-BEN North Fork Powell River

Cause Location: This segment extends form the Straight Creek confluence at river mile 6.25, downstream to the Powell River

confluence and also includes the mainstem from the Payne Branch confluence downstream to the Wolf Harbor

confluence

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

Biological monitoring stations 6BPWL004.40 was impaired based on VSCI scores of 49.4 and 72.5 in 2016. Probabilistic monitoring station 6BPWL006.02 was impaired based on VSCI scores of 53.2 and 58.2 in 2016.

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:						9.03
North Fork Powell River Aquatic Life		(Estuary Sq. Miles)		ervoir :res)	River (Miles)
Wolf Harbour Branch confluence downstream to confluence of Straight Creek near Pocket, WQS Section 1 (TP07).		Bioassessments				
VAS-P20R_PWL01A00 / North Fork Powell River / From Straight Creek confluence near Pocket, river mile 6.25, through Pennington Gap, downstream to Powell River confluence west of Woodway, WQS Section 1 (TP09). VAS-P20R_PWL03B02 / North Fork Powell River / Mainstem from	4A 4A	Benthic Macroinvertebrate Bioassessments Benthic Macroinvertebrate		1994	L	6.05 2.98
	•	ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Loss of Riparian Habitat Streambank

Modifications/Destabilization

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-01-TEMP North Fork Powell River

Cause Location: This segment includes the mainstem from the Payne Branch confluence at Sigma downstream to the confluence

with Straight Creek.

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5A

Class V water quality standard for temperature was exceeded in 36% of the samples at the AWQM station located at 6BPWL006.59. Station 6BPWL010.36 had a 22% exceedance of the Class V water quality standard for temperature.

Temperature - Tota	al Impaire	d Size by Water Type				10.65
North Fork Powell River Aquatic Life			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
VAS-P20R_PWL03B02 / North Fork Powell River / Mainstem f Wolf Harbour Branch confluence downstream to confluence of Straight Creek near Pocket, WQS Section 1 (TP07).	rom 5A	Temperature		2014	М	2.98
VAS-P20R_PWL02A02 / North Fork Powell River / Mainstem f Payne Branch confluence at Sigma downstream to Wolf Harbor Branch confluence, WQS Section 1 (TP07).	rom 5A	Temperature		2016	М	7.67
Assessment Unit / Water Name / Location Desc.	Caus Catego	e Dry Cause Name		First Listed	Dev. Priority	Water Size

Sources:

Silviculture Activities Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-02-BAC Straight Creek and Tributaries

Cause Location: This segment includes Stone Creek from the confluence of Ely Creek to the Straight Creek confluence at the Stone

Creek community and also includes Straight Creek from the headwaters downstream to the North Fork Powell

confluence.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BSR001.11 had a 17% exceedance of the E.coli water quality standard. At 6BSRA000.10 73% exceeded WQS. Station 6BSTC000.04 had a 64% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name	F	Cycle First isted	TMDL Dev. Priority	Water Size
VAS-P20R_SRA01A94 / Straight Creek / From headwaters on Little Black Mountain downstream to North Fork Powell confluence near Pockett in WQS Section 1 (TP08).	4A Escherichia coli (E. coli) 2	2002	L	6.81
VAS-P20R_STC01A96 / Stone Creek & tributaries / From the confluence of Ely Creek to the Straight Creek confluence at the Stone Creek community, parallels Rt. 421, WQS Section 1 (TP08).	4A Escherichia coli (E. coli) 2	2016	L	3.33
Straight Creek and Tributaries		Estuary	Rese		River
Recreation		(Sq. Miles)	(Acı	res)	(Miles)
Escherichia coli (E. coli) - Total	Impaired Size by Water Type:				10.14

Sources:

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-03-BAC Reeds Creek

Cause Location: This segment includes Reeds Creek from the Meadow Fork confluence downstream to the Jones Creek confluence

parallel to Route 628.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BREE000.22 had a 27% exceedance of the E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		First D	IDL ev. Water ority Size
VAS-P20R_REE01A12 / Reeds Creek / Lone Mountain drainage, from Meadow Fork confluence downstream to confluence with North Fork Powell River at Purcell (TP07).	4A Escherichia coli (E. coli)		2012	M 1.35
Reeds Creek Recreation		Estuary (Sq. Miles)	Reservoi (Acres)	r River (Miles)
Escherichia coli (E. coli) - Total Im	npaired Size by Water Type:			1.35

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-04-BEN North Fork Powell River Tributaries

Cause Location: These segments include the headwaters of Bundy Creek at Calvin; Cox Creek near Delvale; and Jones Creek from the headwaters at Trace Gap to the confluence with Reeds Creek, northeast of Purcell

City / County: Lee Co.
Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

_	Cause atego	e ry Cause Name	Cycle First Listed	Dev.	Water Size
VAS-P20R_BUY01B14 / Bundy Creek / Headwaters, at Calvin, of a North Fork Powell River tributary, WQS Section 1 (TP07).	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.53
VAS-P20R_CXR01A14 / Cox Creek / Confluences with North Fork Powell River near Delvale, WQS Section 1 (TP07).	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.89
VAS-P20R_JON01A12 / Jones Creek / From Mud Creek confluence downstream to the confluence with Reeds Creek, Northeast of Purcell (TP07).	5A	Benthic Macroinvertebrates Bioassessments	2014	L	2.93
VAS-P20R_JON01A14 / Jones Creek / Headwaters at Trace Gap down to the Mud Creek confluence, WQS Section 1 (TP07).	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.88
North Fork Powell River Tributaries Aquatic Life		Estuar (Sq. Mil	,	servoir Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Im	paired	d Size by Water Type:			8.23

Sources:

Silviculture Activities Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-02-BAC **Hardy Creek**

Cause Location: This segment includes the Hardy Creek mainstem and its tributaries.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6BHAR000.34 had a 27% exceedance and station 6BHAR002.41 has a 33% exceedance of the

bacteria water quality standard.

	Cause	Cycle First	TMDL Dev.	Water
Assessment Unit / Water Name / Location Desc.	Category Cause Name	Listed	Priority	Size
VAS-P21R_HAR01A02 / Hardy Creek & tributaries / Hardy Cree	ek 5A Escherichia coli (E	i. coli) 2006	M	12.52
& tributaries from headwaters near Hagan downstream to Powell				

River confluence near White Shoals, WQS Section 1, DGIF vi (TP12).

Hardy Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 12.52

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-03-BAC **Powell River**

Cause Location: This segment includes the Powell River from the confluence of Station Creek downstream to the confluence of

Batie Creek, south of Jonesville.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BPOW138.91 had a 11% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Cause Water Listed Priority Assessment Unit / Water Name / Location Desc. Size Category Cause Name Escherichia coli (E. coli) 2006 L 12.74

VAS-P21R_POW02A02 / Powell River / Powell River from the confluence of Station Creek downstream to the confluence of Batie

Creek south of Jonesville, WQS Section 1 (TP10).

Powell River **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 12.74

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Sources:

Sewage Discharges in **Unsewered Areas**

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-03-BEN Powell River

Cause Location: This segment includes the mainstem of the Powell River from the confluence of North Fork Powell River

downstream to the Town Creek confluence.

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Probabilistic biological monitoring station 6BPOW156.57 was impaired based on VSCI scores of 50 and 57.

Assessment Unit / Water Name / Location Desc.	Cause	e ry Cause Name		First Listed	Dev. Priority	Water Size
VAS-P21R_POW02A02 / Powell River / Powell River from the confluence of Station Creek downstream to the confluence of Batie Creek south of Jonesville, WQS Section 1 (TP10).	4A	Benthic Macroinvertebre Bioassessments	ates	2012	L	12.74
VAS-P21R_POW03A02 / Powell River / Mainstem Powell River from the confluence of North Fork Powell River west of Woodway downstream to Station Creek confluence near Poteet Ferry Bridge, WQS Section 1 (TP10).	4A	Benthic Macroinvertebra Bioassessments	ates	2008	L	6.46
Powell River Aquatic Life			Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total	mpaire	d Size by Water Type:				19.20

Cycle TMDL

Sources:

Agriculture Coal Mining Impacts from Abandoned Unrestricted Cattle Access Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-04-BAC **Dry Creek**

Cause Location: From the Trading Creek confluence, along Route 656, downstream to the confluence with Hardy Creek near Route

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6BDBR001.69 had a 18% exceedance of the E. coli water quality standard.

Cycle **TMDL** First Dev. Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name Escherichia coli (E. coli) 2012 VAS-P21R_DBR01A02 / Dry Creek / North of The Cedars, Dry Μ 8.87

Creek is a tributary to Hardy Creek arising south of Cumberland Mountain in Poor Valley, WQS Section 1, DGIF vi (TP12).

Dry Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 8.87

Escherichia coli (E. coli) - Total Impaired Size by Water Type:

Sources:

Unrestricted Cattle Access

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Tennessee and Big Sandy River Basins

Cause Group Code: P21R-04-BEN **Trading Creek**

Cause Location: Trading Creek is a tributary to Dry Creek arising near Ocoonita, south of Cumberland Mountain in Poor Valley.

City / County: Lee Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological monitoring station at 6BTRA000.50 was impaired based on VSCI scores of 54.96 and 62.67.

First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-P21R_TRA01A12 / Trading Creek / Trading Creek is a 2018 4.95 Benthic Macroinvertebrates Bioassessments tributary to Dry Creek arising near Ocoonita, south of Cumberland Mountain in Poor Valley, WQS Section 1, DGIF vi (TP12).

Trading Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 4.95

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Cycle

TMDL

Sources:

Rural (Residential Areas) **Unrestricted Cattle Access**

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Tennessee and Big Sandy River Basins

Cause Group Code: P21R-05-BAC Town Creek

Cause Location: This segment includes the mainstem of Town Creek, originating on Chestnut Ridge, flowing southwest and draining

the Town of Jonesville.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6BTOW003.82 had a 63% exceedance of the E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P21R_TOW01B12 / Town Creek / Originates on Chestnut Ridge, flows south, then west, draining the Town of Jonesville (TP)	2012	M	3.73
Town Creek		Estuary	Rese	ervoir	River
Recreation		(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total	Impaired Size by Water Type:				3.73

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-06-BAC Station Creek

Cause Location: This segment is located north of Wallen Ridge, parallel to U.S. 58, to the confluence with the Powell River at the

Poteet Ferry Bridge.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6BSTN000.14 has a 45% exceedance of the E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name	Cycl Firs Liste	Dev.	Water Size
VAS-P21R_STN01A12 / Station Creek / A Powell River tributary that confluences at Poteet Ferry Bridge, north of Wallen Ridge (TP10).	4A Escherichia coli (E. coli)	2012	2 M	2.31
Station Creek Recreation			eservoir Acres)	River (Miles)
Escherichia coli (E. coli) - Total Im	npaired Size by Water Type:			2.31

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P22R-01-BAC Wallen Creek

Cause Location: This segment includes from the headwaters on Powell Mountain downstream, parallel to Route 612, to the Route

70 crossing.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Station 6BWAL014.54 had a 27% exceedance of the E.coli water quality standard and station 6BWAL026.64 had a 36%

exceedance of the E. coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P22R_WAL02A02 / Wallen Creek, headwaters and tributaries 4A Escherichia coli (E. coli) / Upper Wallen Creek segment from headwaters on Powell Mountain downstream to Rasnic Hollow, WQS Section 1, DGIF vi., WQS Section 1, DGIF vi (TP11).		2012	М	29.71
VAS-P22R_WAL02B02 / Wallen Creek / Middle Wallen Creek 4A Escherichia coli (E. coli) segment from Rasnic Hollow downstream to Route 70 crossing south of Wallen Ridge, WQS Section 1, DGIF vim (TP11).		2012	М	13.19
Wallen Creek	Estuary	Res	ervoir	River
Recreation	(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:				42.90

Sources:

Rural (Residential Areas) Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P22R-01-TEMP Wallen Creek

Cause Location: North of Powell Mountain, from headwaters through Stickleyville, downstream to Rasnic Hollow.

City / County: Lee Co.
Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5A

Class V water quality standard for temperature was exceeded in 18% of the samples at the AWQM stations located at

6BWAL026.64 and 6BWAL014.54.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P22R_WAL02A02 / Wallen Creek, headwaters and tributaries / Upper Wallen Creek segment from headwaters on Powell Mountain downstream to Rasnic Hollow, WQS Section 1, DGIF vi., WQS Section 1, DGIF vi (TP11).			2012	М	29.71
VAS-P22R_WAL02B02 / Wallen Creek / Middle Wallen Creek segment from Rasnic Hollow downstream to Route 70 crossing soutl of Wallen Ridge, WQS Section 1, DGIF vim (TP11).	5A Temperature h		2012	M	13.19
Wallen Creek Aguatic Life		Estuary (Sq. Miles)		ervoir res)	River (Miles)
•	npaired Size by Water Type:	(= 1	,	,	42.90

Sources:

Grazing in Riparian or Shoreline Zones

Loss of Riparian Habitat

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P23R-02-BAC **Martin Creek**

Cause Location: This segment includes the headwaters and extends downstream to the Tennessee political boundary.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6BMTN003.56 had a 45% exceedance and station 6BMTN003.94 had a 50% exceedance of the

E.coli water quality standard.

Cycle First Dev. Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Escherichia coli (E. coli) 2008 M

VAS-P23R MTN01A00 / Martin Creek / Mainstem; from headwaters near Rose Hill, downstream to Tennessee state line, WQS Section 1, DGIF vi (TP14).

Martin Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

> Escherichia coli (E. coli) - Total Impaired Size by Water Type: 9.66

TMDL

Water

Size

9.66

Sources:

Sewage Discharges in **Unsewered Areas**

Unrestricted Cattle Access

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Tennessee and Big Sandy River Basins

Cause Group Code: P23R-03-BAC Fourmile Creek

Cause Location: This segment includes from the headwaters, south of Ingles Chapel, parallel to Route 744 and flows south into

Tennessee.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6BFOU003.59 had a 75% exceedance of the E. coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Cause Category	Cause Name	Cycle TMDL First Dev. Listed Priority	Water Size
VAS-P23R_FOU01A14 / Fourmile Creek / South of Ewing, flows 5A E south into TN, WQS Section 1 (TP16)	scherichia coli (E. coli)	2014 M	2.36
Fourmile Creek Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired S	Size by Water Type:		2.36

Sources:

Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P23R-04-BAC **Powell River**

Cause Location: From the Hardy Creek confluence downstream to the Yellow Creek confluence.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

Station 6BPOW120.69 had a 25% exceedance of the E.coli WQS.

Assessment Unit / Water Name / Location Desc.

Cause Category Cause Name

Cycle **TMDL** First Dev. Water **Priority** Listed Size

8.47

2020

VAS-P23R_POW02A00 / Powell River / From Hardy Creek confluence near White Shoals downstream to Yellow Creek

confluence, WQS Section 1 (TP13).

Powell River Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 8.47

5A Escherichia coli (E. coli)

Sources:

Source Unknown Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P24R-01-BAC Indian Creek

Cause Location: This segment includes the mainstem from the confluence of Machine Branch downstream to the Tennessee

political boundary and the mainstem from Ketron Mill to just south of Elydale School

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6BIND009.12 had a 50% exceedance and station 6BIND010.25 had a 41% exceedance of the

E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P24R_IND01A00 / Indian Creek / Mainstem from the confluence of Machine Branch downstream to the Tennessee state line, near Gibson Station, WQS Section 1 (TP18).	5A	Escherichia coli (E. coli)		2008	М	8.18
VAS-P24R_IND02A14 / Indian Creek / Indian Creek mainstem from the Meek Branch confluence, near Caylor, downstream to the confluence of Machine Branch, near Elydale, WQS Section 1 (TP18)	5A 3).	Escherichia coli (E. coli)		2014	M	4.44
Indian Creek Recreation			Estuary (Sq. Miles)		ervoir :res)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:						12.62

Sources:

Sewage Discharges in Unsewered Areas **Unrestricted Cattle Access**

Tennessee and Big Sandy River Basins

Cause Group Code: P24R-02-BAC **Station Creek**

Cause Location: From Gibson Gap on Cumberland Mountain in Cumberland Gap National Park to the TN line.

City / County: Lee Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

44% of samples collected by the National Park Service exceeded the E. coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size VAS-P24R_STT01A14 / Station Creek / From Gibson Gap on 2018 3.11 Escherichia coli (E. coli) Cumberland Mountain, in Cumberland Gap National Park, to TN line,

WQS Section 1 (TP18)

Station Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation Escherichia coli (E. coli) - Total Impaired Size by Water Type: 3.11

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q01R-01-BAC Dry Fork

Cause Location: This segment includes from the headwaters in upper Baptist Valley to the West Virginia state line near SR 637.

City / County: Tazewell Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6ADRK035.86 had a 45% exceedance of the E. coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q01R_DRK01A98 / Dry Fork / Mainstem from headwaters in upper Baptist Valley to West Virginia state line near SR 637, WQS

Section 2 (BS02).

Dry Fork Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 11.61

5A Escherichia coli (E. coli)

2018

11.61

Sources:

Source Unknown Unspecified Domestic

Waste

Tennessee and Big Sandy River Basins

Cause Group Code: Q01R-02-BAC Jacobs Fork and Tributaries

Cause Location: At the West Virginia state line; Jacobs Fork and Brewster Hollow, east and south of Bishop.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

AQWM station 6AJBF010.88 had a 92% exceedance of the E.coli standard

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size
AS-Q01R JBF01A10 / Jacobs Fork & tributaries / At West 5A Escherichia coli (E. coli) 2010 M 2.34

VAS-Q01R_JBF01A10 / Jacobs Fork & tributaries / At West Virginia state line; Jacobs Fork and Brewster Hollow East and South

of Bishop, WQS Section 3 (BS01).

Jacobs Fork and TributariesEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 2.34

Sources:

Rural (Residential Areas)

Sewage Discharges in

Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q01R-03-BEN Beech Fork

Cause Location: A Tug Fork tributary in the Amonate Community.

City / County: Tazewell Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Probabilistic monitoring station 6ABEJ001.14 was impaired based on VSCI scores of 42.7 and 35.8 in 2017.

Assessment Unit / Water Name / Location Desc.	Cause Catego	ry Cause Name		First Listed	Dev. Priority	Water Size
VAS-Q01R_BEJ01A20 / Beech Fork / A Tug Fork tributary in the Amonate Community, WQS Section 2. (BS02).	e 5A	Benthic Macroinvertebra Bioassessments	ites	2020	L	2.67
Beech Fork			Estuary		ervoir	River
Aquatic Life			(Sq. Miles)	(AC	res)	(Miles)
Benthic Macroinvertebrates Bioassessments - Total	Impaired	Size by Water Type:				2.67

Sources:

Coal Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-01-BEN Pawpaw Creek

Cause Location: This segment includes the mainstem from the Kentucky state line downstream to the Knox Creek confluence, along

State Route 643.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The biological station located at 6APPW000.50 was impaired based on VSCI scores of 50, 36 and 57 in 2005 and 2006.

Cycle **TMDL** First Dev. Cause Water Listed Priority Size Assessment Unit / Water Name / Location Desc. Category Cause Name 1994 4.23 VAS-Q03R PPW01A94 / Pawpaw Creek / From Kentucky state 4A Benthic Macroinvertebrates line near Pawpaw downstream through Kelsa to Knox Creek Bioassessments confluence, along SR 643 in WQS Section 3 (BS06). Pawpaw Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 4.23

Sources:

Coal Mining Impacts from Abandoned Silviculture Activities

Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-02-BAC Knox Creek

Cause Location: This segment includes the mainstem from the headwaters to the Kentucky political boundary.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station located at 6AKOX017.71 had a 33% exceedance, station 6AKOX014.17 had a 33% exceedance, station 6AKOX006.52 had a 42% exceedance and station 6AGIE000.04 had a 38% exceedance of the E.coli water quality standard.

	Cause	e		Cycle First	TMDL Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ry Cause Name		Listed	Priority	Size
VAS-Q03R_GIE01A04 / Guess Fork / Knox Creek tributary from State Line Ridge, north of Hurley, found on Panther and Hurley quasheets in WQS Section 3 (BS05).	AA d	Escherichia coli (E. coli)		2010	L	8.70
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straight Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia, WQS Section 3 (BS04).	4A	Escherichia coli (E. coli))	2006	L	7.75
VAS-Q03R_KOX02A98 / Knox Creek / Mainstem from Kentucky state line upstream through Hurley to the Straight Fork confluence a Blackey, WQS Section 3 (BS07/BS05).	4A t	Escherichia coli (E. coli)		2002	L	9.53
Knox Creek			Estuary	Res	ervoir	River
Recreation			(Sq. Miles)	(Ac	cres)	(Miles)
Escherichia coli (E. coli) - Total I	mpaire	d Size by Water Type:				25.98
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_GIE01A04 / Guess Fork / Knox Creek tributary from State Line Ridge, north of Hurley, found on Panther and Hurley quasheets in WQS Section 3 (BS05).	4A	Fecal Coliform		2004	L	8.70
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straight Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia, WQS Section 3 (BS04).	4A	Fecal Coliform		2002	L	7.75
			Estuary	Pas	ervoir	River
Knox Creek			⊏Stuary	1103	CIVUII	
Knox Creek Recreation			(Sq. Miles)		ervon eres)	(Miles)

Sources:

Rural (Residential Areas)

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-02-BEN Knox Creek

Cause Location: This segment includes the mainstem from the headwaters to the Kentucky political boundary.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The biological station located at 6AKOX011.67 was impaired based on VSCI scores of 43.3 and 47.7 in 2016.

	_			Cycle	TMDL	
	Caus	e		First	Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ory Cause Name		Listed	Priority	Size
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straig Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia, WQS Section 3 (BS04).	ht 4A	Benthic Macroinvertebra Bioassessments	tes	1996	L	7.75
VAS-Q03R_KOX02A98 / Knox Creek / Mainstem from Kentustate line upstream through Hurley to the Straight Fork confluent Blackey, WQS Section 3 (BS07/BS05).	,	Benthic Macroinvertebra Bioassessments	tes	1996	L	9.53
				D	ervoir	River
Knox Creek			Estuary	Res		
Knox Creek Aquatic Life			(Sq. Miles)		cres)	(Miles)

Sources:

Coal Mining Impacts from Abandoned Mountaintop Mining Silviculture Activities Mine Lands (Inactive)

Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-02-PCB Knox Creek and Tributaries

Cause Location: This segment includes the mainstem from the headwaters to the Kentucky political boundary. It also includes all

tributaries to Knox Creek that were included in the December 2005 Virginia Department of Health (VDH) Fish Consumption Ban update including Guess Fork, Big Butt Branch and tributaries, Long Bottom Branch and Pawpaw

Creek.

City / County: Buchanan Co. Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A

Fish Tissue stations located at 6AKOX023.25, 6AKOX020.36, 6AKOX019.30, 6AKOX017.97, 6AKOX014.37, 6AKOX012.06, 6AKOX010.98, 6AKOX008.14 indicated an exceedance of the DEQ screening value for polychlorinated biphenyls (PCBs) and the VDH human health criteria for PCBs.

	Cause	e ry Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_BBB01A10 / Big Butt Branch & tributaries / A tributary to Knox Creek west of State Line Ridge, WQS Section 3 (BS04).	5A	-	2006	L	6.00
VAS-Q03R_CED01A16 / Cedar Branch / Knox Creek tributary NE of Kelsa, WQS Section 3 (BS07).	5A	PCBs in Fish Tissue	2004	L	2.80
VAS-Q03R_GIE01A04 / Guess Fork / Knox Creek tributary from State Line Ridge, north of Hurley, found on Panther and Hurley quad sheets in WQS Section 3 (BS05).	5A	PCBs in Fish Tissue	2006	L	8.70
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straight Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia, WQS Section 3 (BS04).	5A	PCBs in Fish Tissue	2004	L	7.75
VAS-Q03R_KOX02A98 / Knox Creek / Mainstem from Kentucky state line upstream through Hurley to the Straight Fork confluence at Blackey, WQS Section 3 (BS07/BS05).	5A	PCBs in Fish Tissue	2004	L	9.53
VAS-Q03R_LBT01A10 / Long Bottom Branch / Knox Creek tributary east of Blackey in WQS Section 3 (BS04).	5A	PCBs in Fish Tissue	2004	L	1.41
VAS-Q03R_PPW01A94 / Pawpaw Creek / From Kentucky state line near Pawpaw downstream through Kelsa to Knox Creek confluence, along SR 643 in WQS Section 3 (BS06).	5A	PCBs in Fish Tissue	2004	L	4.23
VAS-Q03R_PUM01A16 / Pumpkin Branch / Guess Fork tributary, WQS Section 3 (BS05).	5A	PCBs in Fish Tissue	2004	L	1.64
VAS-Q03R_RAC02A16 / Race Fork / Knox Creek tributary, WQS Section 3 (BS05).	5A	PCBs in Fish Tissue	2004	L	7.04
VAS-Q03R_VDH01A05 / Unsegmented rivers in BS04 / All tributaries to Knox Creek upstream of Blackey that were included in the December 2005 Virginia Department of Health Fish Consumption ban update, WQS Section 3 (BS04).	5A	PCBs in Fish Tissue	2004	L	49.72
VAS-Q03R_VDH02A05 / Unsegmented rivers in BS05 / All tributaries to Knox Creek between Blackey and Bee Branch that were included in the December 2005 Virginia Department of Health Fish Consumption ban update, WQS Section 3 (BS05).	5A	PCBs in Fish Tissue	2004	L	71.55
VAS-Q03R_VDH03A05 / Unsegmented rivers in BS06 / All tributaries to Pawpaw Creek that were included in the December 2005 Virginia Department of Health Fish Consumption ban update, WQS Section 3 (BS06).	5A	PCBs in Fish Tissue	2004	L	25.24

Tennessee and Big Sandy River Basins

VAS-Q03R_VDH04A05 / Unsegmented rivers in BS07 / All tributaries to Knox Creek downstream of Pawpaw Creek that were included in the December 2005 Virginia Department of Health Fish 5A PCBs in Fish Tissue

2004

5.14

Consumption ban update, WQS Section 3 (BS07).

Knox Creek and Tributaries

Estuary (Sq. Miles) Reservoir (Acres)

L

River (Miles)

PCBs in Fish Tissue - Total Impaired Size by Water Type:

200.75

Sources:

Source Unknown

Fish Consumption

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-03-BAC Pawpaw Creek

Cause Location: This segment includes the Pawpaw Creek mainstem from the Kentucky political boundary to the confluence with

Knox Creek.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM stations 6APPW000.03 had a 42% exceedance and 6APPW000.49 had a 50% exceedance of the E.coli water

quality standard.

Cycle TMDL

Cause First Dev. Water

Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q03R_PPW01A94 / Pawpaw Creek / From Kentucky state line near Pawpaw downstream through Kelsa to Knox Creek confluence, along SR 643 in WQS Section 3 (BS06).

Pawpaw Creek

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 4.23

Escherichia coli (E. coli)

2010

4.23

Estitetistia son (E. son) Total impared size by Water Typ

Sources:

Rural (Residential Areas) Sewage Discharges in

Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-01-BAC Levisa Fork and Tributaries

Cause Location: This segment includes the Levisa Fork mainstem from the headwaters downstream to the Slate Creek confluence,

from the Bull Creek confluence downstream to the Kentucky state line, Slate Creek from the Upper Rockhouse Branch confluence downstream to the confluence with the Levisa Fork, the mainstem of Dismal Creek from the confluence of Hurricane Branch to the confluence with Levisa Fork and Little Prater Creek, a Levisa Fork tributary

west of Tookland.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A Fecal Coliform / 4A

The AWQM station located at 6ALEV156.82 had a 60% exceedance of the E.coli water quality standard, station 6ALEV143.80 had a 40% exceedance of the E. coli water quality standard, station 6ASAT000.26 had a 16% exceedance, station 6ALRA000.10 had a 25% exceedance and station 6ALEV131.52 had a 18% exceedance of the E. coli water quality standard.

Cyclo TMDI

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.8 WQS Section 3 (BS09).		2010	L	3.95
VAS-Q04R_LEV01B02 / Levisa Fork / Levisa Fork downstream of Contrary Creek confluence through Keen Mountain to Garden Creek confluence, WQS Section 3 (BS09).		2010	L	3.94
VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71 in WQS Section 3 (BS12).	4A Escherichia coli (E. coli)	2010	L	8.26
VAS-Q06R_LRA01A12 / Little Prater Creek / Levisa Fork tributativest of Tookland, Section 3 (BS12)	ary 4A Escherichia coli (E. coli)	2018	L	3.23
VAS-Q07R_SAT01A00 / Slate Creek / Mainstem from the Upper Rockhouse Branch confluence near Matney downstream to the confluence with Levisa Fork in Grundy, WQS Section 3 (BS13).	r 4A Escherichia coli (E. coli)	2008	L	9.36
VAS-Q08R_LEV01A00 / Levisa Fork / From Rocklick Branch at Big Rock downstream to the Kentucky state line. VPDES permit for Buchanan County PSA/Conaway WWTP is in this segment, WQS Section 3 (BS15).	r	2006	L	2.68
VAS-Q08R_LEV02A00 / Levisa Fork / From Rocklick Branch at Big Rock upstream parallel Route 460 to Bull Creek confluence new Harman Junction, WQS Section 3 (BS14/15).		2008	L	4.72
Levisa Fork and Tributaries Recreation Escherichia coli (E. coli) - Total	Estuary (Sq. Miles Impaired Size by Water Type:		ervoir :res)	River (Miles) 36.14
Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.8 WQS Section 3 (BS09).		2004	L	3.95
VAS-Q04R_LEV01B02 / Levisa Fork / Levisa Fork downstream of Draft 2020 Apper	of 4A Fecal Coliform endix 5 - 2569	2004	L	3.94

Contrary Creek confluence through Keen Mountain to Garden Creek confluence, WQS Section 3 (BS09).

VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71 in WQS Section 3 (BS12).

VAS-Q07R_SAT01A00 / Slate Creek / Mainstem from the Upper

4A Fecal Coliform

Fecal Coliform

2004 L 8.26

L

Rockhouse Branch confluence near Matney downstream to the confluence with Levisa Fork in Grundy, WQS Section 3 (BS13).

Levisa Fork and Tributaries

Recreation

Estuary (Sq. Miles)

Reservoir (Acres)

2002

River (Miles)

9.36

Fecal Coliform - Total Impaired Size by Water Type:

25.51

Sources:

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-01-BEN Levisa Fork and Slate Creek

Cause Location: This segment includes the Levisa Fork mainstern from the confluence of Garden Creek, river mile 155.94,

downstream to the confluence of Bull Creek and from the Rocklick Branch confluence downstream to the Kentucky state line. It also includes the Slate Creek mainstem from the Upper Rockhouse Branch confluence downstream to

the confluence with the Levisa Fork.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The AWQM station located at 6ASAT000.05, 6ASAT004.52, 6ASAT007.71 were impaired based on VSCI scores. Station 6ALEV152.46 was impaired based on VSCI scores of 41 and 57 in 2007 and station 6ALEV130.29 was impaired based on VSCI scored of 38 and 54 in 2007.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name	I	Cycle First isted	TMDL Dev. Priority	Water Size
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.84, WQS Section 3 (BS09).	ates 2	2004	L	3.95
VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71 in WQS Section 3 (BS12).	ates 2	2002	L	8.26
VAS-Q07R_SAT01A00 / Slate Creek / Mainstem from the Upper Rockhouse Branch confluence near Matney downstream to the confluence with Levisa Fork in Grundy, WQS Section 3 (BS13).	ates 2	2004	L	9.36
VAS-Q08R_LEV01A00 / Levisa Fork / From Rocklick Branch at Big Rock downstream to the Kentucky state line. VPDES permit for Buchanan County PSA/Conaway WWTP is in this segment, WQS Section 3 (BS15).	ates 2	2002	L	2.68
VAS-Q08R_LEV03A02 / Levisa Fork / From Slate Creek confluence in Grundy downstream parallel Route 460 to Bull Creek confluence, WQS Section 3 (BS14).	ates 2	2006	L	6.31
Levisa Fork and Slate Creek Aguatic Life	Estuary (Sq. Miles)		ervoir res)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:	,	•	•	30.56

Sources:

Coal Mining Impacts from Abandoned Non-Point Source Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-01-PCB Levisa Fork and Garden Creek

Cause Location: This segment begins at the Levisa Fork headwaters and continues downstream to the Kentucky state line and Garden Creek from the confluence of Right Fork Garden Creek downstream to the confluence with Levisa Fork.

City / County: Buchanan Co. Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 4A

The Fish Tissue station locate at 6AGAR000.16 found polychlorinated biphenyls (PCBs) in the sediment and station 6AGAR001.78 exceeded DEQ's screening value for PCBs. Station 6ALEV130.00 exceeded the Virginia Department of Health's (VDH)human health criteria for PCBs. PCBs were also detected a Fish Tissue station 6ALEV151.26, 6ALEV145.86, 6ALEV134.82, and 6ALEV130.00.

Cycle TMDI

	Cause		(Cycle First	TMDL Dev.	Water
		ry Cause Name	I	Listed	Priority	Size
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron, WQS Section 3 (BS08).	4A	PCBs in Fish Tissue		2004	L	1.84
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.84, WQS Section 3 (BS09).	4A	PCBs in Fish Tissue		2006	L	3.95
VAS-Q04R_LEV01B02 / Levisa Fork / Levisa Fork downstream of Contrary Creek confluence through Keen Mountain to Garden Creek confluence, WQS Section 3 (BS09).	4A	PCBs in Fish Tissue		2006	L	3.94
VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71 in WQS Section 3 (BS12).	4A	PCBs in Fish Tissue		2006	L	8.26
VAS-Q08R_LEV01A00 / Levisa Fork / From Rocklick Branch at Big Rock downstream to the Kentucky state line. VPDES permit for Buchanan County PSA/Conaway WWTP is in this segment, WQS Section 3 (BS15).	4A	PCBs in Fish Tissue		2006	L	2.68
VAS-Q08R_LEV02A00 / Levisa Fork / From Rocklick Branch at Big Rock upstream parallel Route 460 to Bull Creek confluence near Harman Junction, WQS Section 3 (BS14/15).	4A	PCBs in Fish Tissue		2006	L	4.72
VAS-Q08R_LEV03A02 / Levisa Fork / From Slate Creek confluence in Grundy downstream parallel Route 460 to Bull Creek confluence, WQS Section 3 (BS14).	4A	PCBs in Fish Tissue		2006	L	6.31
Levisa Fork and Garden Creek			Estuary		ervoir	River
Fish Consumption		Cina hu Matau Torra	(Sq. Miles)	(AC	res)	(Miles)
PCBs in Fish Tissue - Total Im	ıpaıred	Size by water Type:				31.70

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-02-BAC Garden Creek

Cause Location: This segment includes the headwaters of Garden Creek downstream to the confluence with Levisa Fork and Right

Fork Garden Creek from the headwaters downstream to the confluence with Garden Creek.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

Fecal Coliform / 4A

The AWQM station located at 6AGAR000.16 had a 18% exceedance of the E.coli water quality standard, station 6AGRF002.36 had a 42% exceedance, station 6AGAR005.25 had a 25% exceedance of the E.coli standard, station 6AGRF004.97 had a 50% exceedance of the E.coli water quality standard.

	Cause	9		Cycle First	TMDL Dev.	Water
Assessment Unit / Water Name / Location Desc.	Catego	ry Cause Name		Listed	Priority	Size
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron, WQS Section 3 (BS08).	4A	Escherichia coli (E. coli)		2008	L	1.84
VAS-Q04R_GAR01B02 / Garden Creek / From headwaters of Garden Creek near Lynn Spring Gap downstream to Right Fork confluence near Mount Heron, WQS Section 3 (BS08).	4A	Escherichia coli (E. coli)		2008	L	6.01
VAS-Q04R_GRF01A02 / Right Fork Garden Creek / Headwaters of Right Fork Garden Creek downstream to Garden Creek confluence at Mount Heron, WQS Section 3 (BS08).	s 4A	Escherichia coli (E. coli)		2008	L	10.39
Garden Creek			Estuary	Res	ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total	Impaired	d Size by Water Type:				18.24
						_
Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
Assessment Unit / Water Name / Location Desc. VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron, WQS Section 3 (BS08).				First	Dev.	
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron, WQS	Catego	ry Cause Name	Estuary	First Listed 2002	Dev. Priority	Size
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron, WQS Section 3 (BS08).	Catego	ry Cause Name	Estuary (Sq. Miles)	First Listed 2002	Dev. Priority L	Size 1.84

Sources:

Rural (Residential Areas) Sanitary Sewer Overflows (Collection System Failures)

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-02-BEN Garden Creek

Cause Location: This segment includes the headwaters of Garden Creek downstream to the confluence with Levisa Fork and Right

Fork Garden Creek from the headwaters downstream to the confluence with Garden Creek.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Total Dissolved Solids (TDS) / 4A

The biological stations located at 6AGAR000.16, 6AGAR002.00, 6AGAR005.25, 6AGRF000.56 and 6AGRF004.97 were impaired based on VSCI access.

Cycle TMDL

impaired based on VSCI scores.

Assessment Unit / W	ater Name / Location Desc.	Cause Categor	y Cause Name		First Listed	Dev. Priority	Water Size
confluence with Levisa Fo	Garden Creek / Garden Creek from irk, upstream through Mavisdale to Garden Creek near Mount Heron, WQS	4A	Benthic Macroinvertebra Bioassessments	tes	1998	L	1.84
Garden Creek near Lynn S	Garden Creek / From headwaters of Spring Gap downstream to Right Fork eron, WQS Section 3 (BS08).	4A	Benthic Macroinvertebra Bioassessments	tes	2008	L	6.01
of Right Fork Garden Cree	Right Fork Garden Creek / Headwaters ek downstream to Garden Creek n, WQS Section 3 (BS08).	4A	Benthic Macroinvertebra Bioassessments	tes	2008	L	10.39
Garden Creek				Estuary		ervoir	River
Aquatic Life			O: 1 W . T	(Sq. Miles)	(Ac	cres)	(Miles)
Benthic Ma	croinvertebrates Bioassessments - Total I	Impaired	Size by Water Type:				18.24
Assessment Unit / W	ater Name / Location Desc.	Cause Categor	y Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
Garden Creek near Lynn S	Garden Creek / From headwaters of Spring Gap downstream to Right Fork eron, WQS Section 3 (BS08).	4A	Total Dissolved Solids (ΓDS)	2010	L	6.01
Garden Creek				Estuary		ervoir	River
Aquatic Life	Total Dissolved Solids (TDS) - Total I	mpaired	Size by Water Type:	(Sq. Miles)	(AC	cres)	(Miles) 6.01
Sources:	· · ·	-					
			5		5		
Coal Mining	Impacts from Abandoned Mine Lands (Inactive)	Rural (Residential Areas)		e Discha ered Are	0	

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q05R-00-BEN Dismal Creek

Cause Location: This segment includes the headwaters of Dismal Creek near Redoak Ridge downstream through Jewell Valley and

Whitewood to the Laurel Fork confluence.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The biological monitoring station located at 6ADIS022.34 was impaired based on VSCI scores of 48.8 and 52.9 in 2013.

Cause Cycle TMDL
First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q05R_DIS02A00 / Dismal Creek / Headwaters of Dismal Creek near Redoak Ridge downstream through Jewell Valley and Bioassessments

Cycle TMDL
First Dev. Water
Listed Priority Size

VAS-Q05R_DIS02A00 / Dismal Creek / Headwaters of Dismal Creek near Redoak Ridge downstream through Jewell Valley and Bioassessments

Creek near Redoak Ridge downstream through Jewell Valley and Whitewood to Laurel Fork confluence, WQS Section 3, DGIF vi (BS10).

Dismal Creek

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Miles)

(Acres)

(Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

9.14

Sources:

Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q05R-00-TEMP Dismal Creek

Cause Location: This segment includes Dismal Creek from the confluence of Long Branch to the confluence with Levisa Fork.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5A

The AWQM station located at 6ADIS001.24 had a 16% exceedance of the temperature water quality standard for WQS Class

V waters.

Assessment Unit / Water Name / Location Desc.

Cause Category Cause Name
5A Temperature

Cycle TMDL First Dev. Water Listed Priority Size

M

VAS-Q05R_DIS01A00 / Dismal Creek / Dismal River from confluence of Long Branch downstream parallel SR 638 to confluence with Levisa Fork in WQS Section 3, DGIF vi (BS1)

confluence with Levisa Fork in WQS Section 3, DGIF vi (BS11).

Dismal Creek

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

2008

Temperature - Total Impaired Size by Water Type:

5.38

5.38

Sources:

Aquatic Life

Loss of Riparian Habitat

Silviculture Activities

Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q05R-01-BAC Dismal Creek

Cause Location: This segment includes the mainstem of Dismal Creek from the Laurel Fork confluence downstream to the Long

Branch confluence.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

AWQM station 6ADIS014.33 had an 17% exceedance of the E. coli water quality standard.

Cycle TMDL
Cause
Cause
Assessment Unit / Water Name / Location Desc.
Category Cause Name
Cause First Dev. Water
Category Cause Name
Listed Priority Size
As-Q05R DIS01B02 / Dismal Creek / Mainstem parallel to SR 4A Escherichia coli (E. coli)
2010 M 12.44

VAS-Q05R_DIS01B02 / Dismal Creek / Mainstem parallel to SR 638 from Laurel Fork confluence near Whitewood downstream through Pilgrims Knob to the Long Branch confluence in WQS Section 3, DGIF vi (BS11).

Dismal Creek
Recreation

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 12.44

Sources:

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-01-BAC Bull Creek, Poplar Creek, and Home Creek

Cause Location: This segment includes the Bull Creek mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel

Fork, Cove Hollow. This segment also includes Poplar Creek at the confluence with Knotty Poplar Fork and continues downstream to the confluence with Levisa Fork. This segment also includes Home Creek, a tributary to

the Levisa Fork.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The AWQM station located at 6ABLC000.85 had a 25% exceedance of the E.coli water quality standard and station 6ABLC002.30 had an 85% exceedance of the E.coli water quality standard. Station 6APLR000.06 had a 25% exceedance of the E.coli standard. Station 6AHME000.42 has a 16% exceedance of the E. coli water quality standard.

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_BLC01A98 / Bull Creek & tributaries / Bull Creek 4A Escherichia coli (E. coli) mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel Fork, Cove Hollow in WQS Section 3 (BS14).)	2008	M	28.45
VAS-Q08R_HME01A04 / Home Creek / Levisa Fork tributary south 4A Escherichia coli (E. coli) of Big Rock upstream to Spencer Fork confluence, WQS Section 3 (BS14).)	2014	М	4.79
VAS-Q08R_PLR01A08 / Poplar Creek / Mainstem from Poplar 4A Escherichia coli (E. coli) Fork confluence downstream to 0.19 river mile above confluence with Levisa Fork near Harman Junction, Section 3 (BS14).)	2008	M	3.03
VAS-Q08R_PLR01A14 / Poplar Creek / Mainstem from Levisa 4A Escherichia coli (E. coli) Fork near Harman Junction upstream to first tributary at river mile 0.19 (BS14).)	2008	M	0.19
Bull Creek, Poplar Creek, and Home Creek Recreation	Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:	,	`	•	36.46

Sources:

Illegal Dumps or Other Inappropriate Waste Disposal Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-01-BEN Bull Creek and Tributaries

Cause Location: This segment includes the Bull Creek mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel

Fork and Cove Hollow.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The biological station located at 6ABLC002.30 was impaired based on VSCI scores of 41 and 32 in 2006. Recent data

indicated the benthic impairment continues.

Cycle **TMDL** First Dev. Cause Water Assessment Unit / Water Name / Location Desc. Category Cause Name Listed **Priority** Size VAS-Q08R_BLC01A98 / Bull Creek & tributaries / Bull Creek Benthic Macroinvertebrates 1998 28.45 Bioassessments mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel Fork, Cove Hollow in WQS Section 3 (BS14).

Bull Creek and Tributaries

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 28.45

Sources:

Coal Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-02-BEN Home Creek

Cause Location: This segment is a Levisa Fork tributary south of Big Rock, upstream to the Spencer Fork confluence, parallel to

Route 650.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Biological monitoring station at 6AHME002.16 was impaired based on VSCI scores of 22.7 and 54.0 in 2013.

Cycle **TMDL** Dev. Cause First Water Category Cause Name Listed Priority Size Assessment Unit / Water Name / Location Desc. 2010 VAS-Q08R_HME01A04 / Home Creek / Levisa Fork tributary south 4A Benthic Macroinvertebrates M 4 79 Bioassessments of Big Rock upstream to Spencer Fork confluence, WQS Section 3 (BS14).

Home Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

4.79

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Coal Mining Rural (Residential Areas) Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-05-BAC **Conaway Creek**

Cause Location: This segment is a Levisa Fork tributary at Conaway near Kentucky state line upstream to Caney Fork confluence.

City / County: Buchanan Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

AWQM station 6ACNW000.07 had a 42% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Size

VAS-Q08R_CNW01A08 / Conaway Creek / Levisa Fork tributary at Conaway near Kentucky state line upstream to Caney Fork confluence (BS15).

Conaway Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

> Escherichia coli (E. coli) - Total Impaired Size by Water Type: 2.62

Escherichia coli (E. coli)

2.62

2016

Sources:

Illegal Dumps or Other Inappropriate Waste

Disposal

Sewage Discharges in **Unsewered Areas**

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-05-BEN Conaway Creek

Cause Location: Levisa Fork Tributary at Conaway near the Kentucky state line upstream to the Caney Fork confluence.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Biological monitoring station at 6ACNW000.07 was impaired based on VSCI scores of 36.2 and 51.6 in 2014.

Cycle **TMDL** First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size 2014 2.62 VAS-Q08R_CNW01A08 / Conaway Creek / Levisa Fork tributary 5A Benthic Macroinvertebrates Μ Bioassessments at Conaway near Kentucky state line upstream to Caney Fork confluence (BS15).

Conaway Creek

Aquatic Life

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 2.62

Sources:

Coal Mining Mountaintop Mining Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-06-BEN State Line Branch

Cause Location: A tributary to Levisa Fork in KY north of Conaway.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI

scores.

Cause Assessment Unit / Water Name / Location Desc. Category Categ	Cycle First ause Name Listed	
The good_older of the Brahen / Thousany to Lovica	hic Macroinvertebrates 2014 ssessments	M 1.35
State Line Branch Aquatic Life	(Sq. Miles) (A	servoir River Acres) (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size	by Water Type:	1.35

Sources:

Coal Mining Mountaintop Mining Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-07-BEN Home Creek Headwaters

Cause Location: This segment includes the headwaters of Home Creek.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Cycle **TMDL** First Dev. Water Cause Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-Q08R_HME01B14 / Home Creek / Headwaters of Home 2014 0.80 Benthic Macroinvertebrates Bioassessments Creek, Section 4 (BS14). Home Creek Headwaters Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 0.80

Sources:

Coal Mining Rural (Residential Areas) Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-08-BEN Conaway Creek and Tributaries

Cause Location: Headwaters of Conaway Creek.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
$\label{lem:VAS-Q08R_CEK01A20 / Caney Fork / Conaway Creek tributary, WQS Section 3 (BS15).}$	5A	Benthic Macroinvertebrates Bioassessments	2014	М	2.38
VAS-Q08R_CNW02A14 / Conaway Creek and tributaries / From Lick Branch down to the confluence with Caney Fork, WQS Section (BS15).		Benthic Macroinvertebrates Bioassessments	2014	М	2.85
VAS-Q08R_JIM01A20 / Jim Belcher Fork / Conaway Creek Tributary, WQS Section 3 (BS15).	5A	Benthic Macroinvertebrates Bioassessments	2014	М	1.75
Conaway Creek and Tributaries Aquatic Life		Estuary (Sg. Miles		ervoir cres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total I	mpaire	\ 1	,	,	6.98

Sources:

Coal Mining Mountaintop Mining Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-09-BEN Poplar Creek

Cause Location: This segment includes the mainstem of Poplar Creek from the Poplar Fork confluence downstream to rivermile

0.19, above the confluence with the Levisa Fork near Harman Junction.

City / County: Buchanan Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI

scores.

Cycle **TMDL** First Dev. Cause Water Assessment Unit / Water Name / Location Desc. Category Cause Name Listed **Priority** Size VAS-Q08R_PLR01A08 / Poplar Creek / Mainstem from Poplar Benthic Macroinvertebrates 2014 3.03 Bioassessments Fork confluence downstream to 0.19 river mile above confluence with Levisa Fork near Harman Junction, Section 3 (BS14). Poplar Creek **Estuary** Reservoir River (Acres) (Sq. Miles) (Miles) **Aquatic Life**

3.03

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q09R-01-BAC **Russell Fork and Tributaries**

Cause Location: This segment includes the unassessed stream segments in the headwaters of Russell Fork downstream to the confluence of the Pound River near Bartlick and from the Kentucky state line upstream 2.2 miles. Hurricane Creek

from the confluence of Carver Branch downstream to the confluence with Russell Fork. It also includes Little Pawpaw Creek, a Russell Fork tributary north of Cannady, Sullivan Branch, an Indian Creek tributary from the

headwaters on Long Ridge north of Duty, and Grassy Creek, a PWS segment for Elkhorn City, KY.

City / County: Buchanan Co. Dickenson Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6ARSS047.10 had a 17% exceedance of the E.coli water quality standard, station 6ARSS041.08 had a 50% exceedance, station 6ARSS024.30 had a 17% exceedance, station 6ARSS014.15 had a 11% exceedance and Level III citizen monitoring station 6ARSS-RT722-MRRP had a 66% exceedance. Station 6AHRC000.05 had a 73% exceedance and station 6ALPP01A18 had a 15% exceedance and station 6ASLV000.05 had a 55% exceedance and station 6AGSS002.37 had a 46% exceedance of the E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Caus Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q09R_HUR01A02 / Hurricane Creek / Mainstem from confluence of Carver Branch downstream to the confluence with Russell Fork at Davenport, WQS Section 4 (BS16).	5A	Escherichia coli (E. coli)		2010	Н	0.85
VAS-Q09R_RSS01A00 / Russell Fork / Russell Fork mainstem form Hollow Poplar Creek downstream following Buchanan/ Dickenson County line to confluence of Pawpaw Creek near Cannady in WQS Section 4 (BS18).	5A	Escherichia coli (E. coli)		2010	Н	7.46
VAS-Q09R_RSS02A00 / Russell Fork headwaters / Headwaters of Russell Fork on Big A Mountain downstream through Davenport to the confluence of Hollow Poplar Branch, WQS Section 4 (BS16).	of 5A	Escherichia coli (E. coli)		2004	Н	8.87
VAS-Q09R_SLV01A08 / Sullivan Branch / Indian Creek tributary from headwaters on Long Ridge north of Duty (BS17).	5A	Escherichia coli (E. coli)		2018	Н	1.62
VAS-Q10R_LPP01A18 / Little Pawpaw Creek / Russell Fork tributary, north of Cannady (BS21).	5A	Escherichia coli (E. coli)		2018	Н	2.93
VAS-Q10R_RSS01A00 / Russell Fork / Upper mainstem from confluence of Pawpaw Creek at the county line, downstream to Fryingpan Creek confluence in WQS Section 4 (BS21).	5A	Escherichia coli (E. coli)		2010	Н	4.34
VAS-Q12R_GSS01A12 / Grassy Creek / Kentucky state line, WQ Section 4e. This is the PWS for Elkhorn City, Kentucky (BS35).	S 5A	Escherichia coli (E. coli)		2020	Н	2.08
VAS-Q12R_RSS02A04 / Russell Fork / From Kentucky state line upstream 2.2 miles to protect Elkhorn City, Kentucky, raw water intake, WQS Section 4e (BS35).	5A	Escherichia coli (E. coli)		2006	Н	2.25
VAS-Q12R_RSS03A02 / Russell Fork / Mainstem from the Pound River confluence near Bartlick, upstream through Splashdam to the McClure River confluence in Haysi, WQS Section 4 (BS27).	j 5A	Escherichia coli (E. coli)		2012	Н	3.90
Russell Fork and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:						34.30

Tennessee and Big Sandy River Basins

Sources:

Rural (Residential Areas)

Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q09R-01-BEN Indian Creek

Cause Location: A Russell Fork tributary from the Cane Creek confluence at Duty, parallel to Route 602, downstream to the Russell

Fork confluence at the Buchanan/Dickenson County line.

City / County: Buchanan Co. Dickenson Co.

Ridge and Long Ridge, WQS Section 4 (BS17).

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The probabilistic monitoring station located at 6AIND000.52 was impaired based on VSCI scores of 48.32 and 51.50.

Cycle **TMDL** First Cause Dev. Water Listed Priority Category Cause Name Size Assessment Unit / Water Name / Location Desc. 2012 2.69 VAS-Q09R IND01A10 / Indian Creek / Russell Fork tributary from 5A Benthic Macroinvertebrates M Cane Creek confluence at Duty downstream to the Russell Fork Bioassessments confluence on Buchanan/Dickenson County line between Indian

Indian Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 2.69

Sources:

Coal Mining Mountaintop Mining Rural (Residential Areas) Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q10R-01-BEN Fryingpan Creek

Cause Location: From headwaters on Sandy Ridge near Carrie downstream to the Priest Fork confluence.

City / County: Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The probabilistic monitoring station 6AFRY006.70 indicates impairment based on VSCI scores of 42.64 and 36.89 in 2016.

Cycle First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-Q10R_FRY02A04 / Fryingpan Creek / From headwaters on 2012 9.45 Benthic Macroinvertebrates Bioassessments

Sandy Ridge near Carrie downstream to the Priest Fork confluence,

west of Sportsman Lake in WQS Section 4 (BS19).

Fryingpan Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 9.45

Sources:

Coal Mining **Unspecified Land**

Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q10R-02-BEN Little Pawpaw Creek

Cause Location: A Russell Fork tributary, north of Cannady.

City / County: Buchanan Co. Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Station 6ALPP001.60 was impaired based on VSCI scores of 23.3 and 51.4 in 2015.

Assessment Unit / Water Name / Location Desc.	Ssessment Unit / Water Name / Location Desc. Cause Category Cause Name			Dev. Priority	vvater Size
VAS-Q10R_LPP01A18 / Little Pawpaw Creek / Russell Fork tributary, north of Cannady (BS21).	5A Benthic Macroinvertebrat Bioassessments	es	2020	L	2.93
Little Pawpaw Creek Aguatic Life		Estuary (Sg. Miles)		ervoir eres)	River (Miles)
Renthic Macroinvertehrates Ricassessments - Tota	al Impaired Size by Water Type:	(-1)		,	2 03

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-02-BAC McClure River and Tributaries

Cause Location: This segment begins at the Buffalo Creek confluence and continues downstream to the Road Branch confluence and Buffalo Creek from the headwaters downstream to the confluence with McClure River and includes Roaring

Fork

City / County: Dickenson Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 4A

The station identified as BC on Buffalo Creek had a 50% exceedance of the E.coli water quality standard and station 6AMCR007.46 had a 16% exceedance and station 6AMCR014.69 had a 58% exceedance and station 6AROR-RF-MRRP had a 12% exceedance of the E. coli water quality standard.

	Cause atego	e ry Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q11R_BFF01A08 / Buffalo Creek / A McClure River tributary north of Nora, confluence is at Buffalo Tunnel, Section 4 (BS25).	4A	Escherichia coli (E. coli)		2008	L	3.25
VAS-Q11R_BSB01A10 / Big Spraddle Branch / A McClure River tributary, west of Stratton, WQS Section 4 (BS25).	4A	Escherichia coli (E. coli)		2012	L	2.31
VAS-Q11R_MCR02A00 / McClure River / West of Reedy Ridge, from Caney Creek confluence north of McClure, downstream to Road Branch confluence near Steinman, WQS Section 4 (BS25).	4A I	Escherichia coli (E. coli)		2006	L	9.68
VAS-Q11R_MCR03A06 / McClure River / Upstream of Caney Creek confluence at McClure through Stratton to the Buffalo Creek confluence near Buffalo Tunnel, includes the communities of McClure and Stratton, WQS Section 4 (BS25).	4A	Escherichia coli (E. coli)		2006	L	3.38
VAS-Q11R_MCR04A06 / McClure River / From Buffalo Creek confluence north of Nora upstream to headwaters, parallels Sandy Ridge to the west, WQS Section 4 (BS23).	4A	Escherichia coli (E. coli)		2012	L	8.70
VAS-Q11R_ROR01A14 / Roaring Fork / Tributary to McClure Creek upstream of Nora to Dark Hollow, Section 4 (BS223).	4A	Escherichia coli (E. coli)		2014	L	1.08
McClure River and Tributaries Recreation			Estuary (Sq. Miles)		ervoir res)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:						28.40

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-02-BEN Wakenva Branch

Cause Location: A Honey Branch tributary, west of Trammel.

City / County: Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI

scores.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q11R_WAK01A14 / Wakenva Branch / Honey Branch tributary, Section 4 (BS23).	5A Benthic Macroinvertebrates Bioassessments	2014	М	1.80
Wakenva Branch Aquatic Life	Estua (Sq. Mil	,	servoir Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Tota	I Impaired Size by Water Type:			1.80

Sources:

Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-04-BEN Cowan Rose Branch

Cause Location: This segment includes Cowan Rose Branch, a tributary to Open Fork west of Carrico Ridge.

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

City / County: Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI

scores.

Cycle **TMDL** First Dev. Cause Water Priority Category Cause Name Listed Assessment Unit / Water Name / Location Desc. Size VAS-Q11R_CRC01A14 / Cowan Rose Branch / Spring Fork Benthic Macroinvertebrates 2014 Μ 3.30 Bioassessments tributary west of Carico Ridge (BS22). Cowan Rose Branch Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

3.30

Sources:

Coal Mining

Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-05-BEN Dismal Fork

Cause Location: This segment includes Dismal Fork, a Neece Creek tributary between Brushy Ridge and Dismal Ridge.

City / County: Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological monitoring data indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category Cause Name		First Listed	Dev. Priority	Water Size
VAS-Q11R_DIL01A14 / Dismal Fork / Neece Creek tributaries from Dismal Ridge, Section 4 (BS22).	5A Benthic Macroinvertebra Bioassessments	ates	2014	М	4.51
Dismal Fork		Estuary (Sq. Miles)		ervoir cres)	River (Miles)
Aquatic Life Benthic Macroinvertebrates Bioassessments - Total	Impaired Size by Water Type:	(Sq. Miles)	(AC	nes)	4.51

Sources:

Coal Mining (Subsurface) Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-01-BAC Russell Prater Creek

Cause Location: This segment extends from the headwaters at Poplar Gap downstream to the confluence with Russell Fork.

City / County: Buchanan Co. Dickenson Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6ARPC000.40 had a 33% exceedance of the E.coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 11.72 VAS-Q12R_RPC01A96 / Russell Prater Creek / Flows west from 2008 5A Escherichia coli (E. coli) the headwaters at Poplar Gap downstream to Russell Fork

confluence in Haysi, WQS Section 4 (BS26).

Russell Prater Creek
Recreation

Reservoir River
(Sq. Miles)
(Acres)
(Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 11.72

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-01-BEN Russell Prater Creek

Cause Location: This segment extends from the headwaters of Russell Prater Creek downstream to the confluence with Russell

City / County: Buchanan Co. Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A Sedimentation/Siltation /

Total Dissolved Solids (TDS) / 4A

The biological station located at 6ARPC000.52 was impaired based on VSCI scores of 50.0 and 57.3 in 2018. 6ARPC002.45

was impaired based on VSCI scores of 33 and 46 in 2005.

TMDL Cycle Dev. First Cause Water Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-Q12R_RPC01A96 / Russell Prater Creek / Flows west from Benthic Macroinvertebrates 1996 11.72 Bioassessments

the headwaters at Poplar Gap downstream to Russell Fork confluence in Haysi, WQS Section 4 (BS26).

Russell Prater Creek Estuary Reservoir River (Acres) (Sq. Miles) (Miles) **Aquatic Life**

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 11.72

Cycle **TMDL**

First Dev. Water Cause Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size VAS-Q12R RPC01A96 / Russell Prater Creek / Flows west from Total Dissolved Solids (TDS) 2010 L 11.72

the headwaters at Poplar Gap downstream to Russell Fork confluence in Haysi, WQS Section 4 (BS26).

Russell Prater Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Total Dissolved Solids (TDS) - Total Impaired Size by Water Type: 11.72

Sources:

Coal Mining Impacts from Abandoned

Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-01-TEMP Russell Fork

Cause Location: From the Kentucky state line upstream 2.2 miles.

City / County: Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5A

Station 6ARSS014.15 had 28% of temperature measurements exceed the water quality standard for Class V waters.

Cycle **TMDL** First Dev. Water Cause Listed Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Size 2.25 VAS-Q12R_RSS02A04 / Russell Fork / From Kentucky state line 2020 5A Temperature upstream 2.2 miles to protect Elkhorn City, Kentucky, raw water intake, WQS Section 4e (BS35). Russell Fork Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life**

Temperature - Total Impaired Size by Water Type:

2.25

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-05-BEN Middle Fork (Hunts Creek)

Cause Location: This segment is located parallel to Route 631 near Breaks.

City / County: Buchanan Co. Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI

TMDL

Cycle First Dev. Cause Water Priority Listed Assessment Unit / Water Name / Location Desc. Category Cause Name Size 2014 VAS-Q12R_XGN01A12 / Middle Fork (Hunts Creek) / A Hunts Benthic Macroinvertebrates M 2.93 Creek tributary north of Breaks in WQS Section 4 (BS35). Bioassessments Middle Fork (Hunts Creek) Reservoir **Estuary** River (Sq. Miles) (Acres) (Miles) **Aquatic Life** Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 2.93

Sources:

Loss of Riparian Habitat Silviculture Activities Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-06-BEN Grassy Creek

Cause Location: From the Kentucky state line upstream 2.2 miles.

City / County: Buchanan Co. Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Probabilistic monitoring station 6AGSS002.37 was impaired based on VSCI scores of 53.0 and 59.3 in 2018.

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Cause Assessment Unit / Water Name / Location Desc. Cause Category Cause Name				Cycle First Listed	TMDL Dev. Priority	Water Size	
VAS-Q12R_GSS01A12 / Grassy Creek / Kentucky state line, W Section 4e. This is the PWS for Elkhorn City, Kentucky (BS35).	/QS		Benthic Macroinvertebrat Bioassessments	es	2020	L	2.08
Grassy Creek				Estuary (Sq. Miles)		ervoir eres)	River (Miles)

2.08

Sources:

Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q13L-01-HG John Flannagan Reservoir

Cause Location: This reservoir is located Northeast of Clintwood near the Kentucky state line.

City / County: Dickenson Co. Use(s): Fish Consumption

Cause(s) / VA Category: Mercury in Fish Tissue / 5A

Fish tissue sampling done in 2008 found one largemouth bass that exceeded the Virginia Department of Health's level of concern and one exceeded the DEQ screening value for Mercury.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q13L_PNR01A02 / John Flannagan Reservoir / This reservoir was built by USACOE to provide flood control, pollution abatement, fish and wildlife habitat, and recreational opportunities.NE of Clintwood near Kentucky state line, WQS Section 4a (BS34).

John Flannagan ReservoirEstuaryReservoirRiverFish Consumption(Sq. Miles)(Acres)(Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 1,177.21

Mercury in Fish Tissue

2010

L

######

Sources:

Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-01-BEN **South Fork Pound River and Tributaries**

Cause Location: This segment includes the South Fork of the Pound River at the headwaters and continues downstream to the

confluence with the North Fork Pound River including Phillips Creek, Hays Branch, and Glady Fork.

City / County: Dickenson Co. Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Biological stations located at 6APNS008.73, 6APNS004.98 and 6APNS000.40 were impaired based on VSCI scores. Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

•	Cause atego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_GLD01A14 / Glady Fork / Tributaries to South Fork Pound River near Glady Fork School, Section 4 (BS28).	4A	Benthic Macroinvertebra Bioassessments	ates	2014	L	1.91
VAS-Q13R_HAY01A14 / Hays Branch / Tributary to South Fork Pound River south of Pound, Section 4 (BS28).	4A	Benthic Macroinvertebra Bioassessments	ates	2014	L	0.86
VAS-Q13R_PNS01A02 / South Fork Pound River / From unnamed tributary parallel to SR 620 immediately upstream of Rat Creek at Dewey, downstream to the Glady Fork confluence, WQS Section 4 (BS28).	4A	Benthic Macroinvertebra Bioassessments	ates	2004	L	3.44
VAS-Q13R_PNS01A94 / South Fork Pound River / Mainstem from Glady Fork confluence downstream to confluence with Pound River west of Town of Pound, WQS Section 4 (BS28).	4A	Benthic Macroinvertebra Bioassessments	ates	2002	L	3.59
VAS-Q13R_PNS02A02 / Phillips Creek (no longer exists) / Strip Mine at 37 03 25/-82 42 20	4A	Benthic Macroinvertebra Bioassessments	ates	2002	L	1.70
VAS-Q13R_PNS02B04 / South Fork Pound River / Mainstem only from Donald Branch downstream to unnamed tributary just upstream of Rat Creek, in Wise County, WQS Section 4 (BS28).	4A	Benthic Macroinvertebra Bioassessments	ates	2004	L	2.21
South Fork Pound River and Tributaries Aquatic Life			Estuary (Sq. Miles)		ervoir eres)	River (Miles)
·						13.71

Sources:

Mountaintop Mining Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-02-BEN North Fork Pound River

Cause Location: This segment includes the mainstem from the headwaters downstream to the North Fork Pound Reservoir intake and from the backwaters of the North Fork Pound Lake downstream to the confluence with the Pound River.

City / County: Wise Co.
Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

The biological station located at 6APNK000.08 was impaired based on 2006 VSCI scores of 53 and 58.

Cycle **TMDL** Dev. Cause First Water Priority Category Cause Name Listed Size Assessment Unit / Water Name / Location Desc. 2002 1.29 VAS-Q13R PNK01A96 / North Fork Pound River / Mainstem south 4A Benthic Macroinvertebrates of Horse Gap from the dam of North Fork Pound Lake, river mile Bioassessments 1.08, downstream to the confluence with Pound River, WQS Section 4, DGIF vi (BS28). North Fork Pound River Estuary Reservoir River

Aquatic Life Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

1.29

Sources:

Dam or Impoundment Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-03-BAC **Pound River**

Cause Location: This segment includes from the Georges Fork confluence upstream to the confluence with the North and South

Fork Pound Rivers west of the Town of Pound and from the Georges Fork confluence downstream to the lake

backwaters at Jerry Branch.

City / County: Dickenson Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6APNR017.79 had a 17% exceedance, station 6APNR023.86 had a 0% exceedance and 6APNR028.76 and 30% exceedance of the E.coli water quality standard. Station 6APNR035.66 had a 18% exceedance of the

E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Caus Catego	e ory Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_PNR01A00 / Pound River / Pound River flows west from the Georges Fork confluence upstream to the confluence of North Fork and South Fork Pound Rivers west of the Town of Pour WQS Section 4 (BS29/30).	5A id,	Escherichia coli (E. coli)	2008	L	16.94
VAS-Q13R_PNR02B02 / Pound River / From Georges Fork confluence downstream to lake backwaters near Jerry Branch, WC Section 4 (BS30).	5A S	Escherichia coli (E. coli)	2006	L	3.22
Pound River			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:						20.16

Sources:

Sewage Discharges in **Unsewered Areas**

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-03-TEMP North Fork Pound River

Cause Location: This segment includes the mainstem, south of Horse Gap from the dam of North Fork Pound Lake, downstream to

the confluence with the Pound River.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Temperature / 5C

Station 6APNK000.08 had a 16% exceedance of the water quality standard for temperature.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q13R_PNK01A96 / North Fork Pound River / Mainstem south 5C Temperature of Horse Gap from the dam of North Fork Pound Lake, river mile 1.08, downstream to the confluence with Pound River, WQS Section

4, DGIF vi (BS28).

North Fork Pound River

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Temperature - Total Impaired Size by Water Type:

2010

L

1.29

1.29

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-04-BEN Indian Creek

Cause Location: Pound River tributary south of the Town of Pound upstream to Barn Branch confluence.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Station 6AIAC000.42 was impaired based on VSCI scores of 34.01 and 32.55 in 2010. SOS monitoring at 6BIAC-Indian Creek-

SOS in 2007 detected an unacceptable benthic community.

Cycle **TMDL** First Dev. Cause Water Priority Category Cause Name Listed Assessment Unit / Water Name / Location Desc. Size 5A Benthic Macroinvertebrates 2012 L VAS-Q13R_IAC01A10 / Indian Creek / Lower segment, Pound 2 98 Bioassessments

River tributary that is parallel to Hwy 23, south of the Town of Pound upstream to Barn Branch confluence in WQS Section 4 (BS29).

Indian CreekEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

2.98

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Coal Mining Rural (Residential Areas) Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-06-BEN Pound River

Cause Location: This segment includes the Pound River from Georges Fork confluence upstream to the confluence of the North

Fork and South Fork Pound Rivers.

City / County: Dickenson Co. Wise Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological station located at 6APNR034.58 was impaired based on VSCI scores. Station 6APNR023.86 was impaired

based on VSCI scores of 51.97 and 31.98 in 2013.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q13R_PNR01A00 / Pound River / Pound River flows west from the Georges Fork confluence upstream to the confluence of North Fork and South Fork Pound Rivers west of the Town of Pound, WQS Section 4 (BS29/30).

A Benthic Macroinvertebrates 2004 I Bioassessments 16.94

16.94

Pound River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Coal Mining Rural (Residential Areas) Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-08-BAC Indian Creek

Cause Location: Lower segment of Indian Creek, parallel to US Highway 23.

City / County: Wise Co. Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

Station 6AIAC000.23 had a 67% exceedance of the e.coli water quality standard.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q13R_IAC01A10 / Indian Creek / Lower segment, Pound River tributary that is parallel to Hwy 23, south of the Town of Pound upstream to Barn Branch confluence in WQS Section 4 (BS29).

Indian CreekEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli (E. coli) - Total Impaired Size by Water Type: 2.98

Escherichia coli (E. coli)

2.98

2020

Sources:

Sanitary Sewer Overflows Sewage Discharges in (Collection System Failures) Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-08-BEN **North Fork Pound River Tributaries**

Cause Location: This segment includes the PWS segment from the raw water intake in the North Fork Powell Reservoir, upstream

five miles on all tributaries, including Bad Creek, Rumley Branch and an unnamed tributary near Laurel Fork.

Wise Co. City / County: Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 4A

Biological monitoring station 6APNK005.58 was impaired based on VSCI scores.

Cycle **TMDL** First Dev. Cause Water Priority Listed Assessment Unit / Water Name / Location Desc. Category Cause Name Size

VAS-Q13R PNK01A00 / North Fork Pound River tributaries / PWS 4A segment from raw water intake in North Fork Pound Reservoir, upstream five miles on all tributaries, WQS Section 4b (BS28).

Benthic Macroinvertebrates Bioassessments

2010 10.25

North Fork Pound River Tributaries **Estuary** (Sq. Miles) **Aquatic Life**

(Acres) (Miles)

Reservoir

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

10.25

River

Sources:

Coal Mining **Unspecified Land** Silviculture Harvesting

Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-09-BAC **Big Branch**

Cause Location: This segment includes Big Branch, a tributary to the South Fork Pound River off Route 671.

City / County: Dickenson Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

Citizen monitoring station 6A-BIGBR-NF-MRRP has a 16% exceedance of the E. coli water quality standard.

Cycle **TMDL** First Dev. Water Cause Priority Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size VAS-Q13R_BID01A14 / Big Branch / Tributary to South Fork 2014 1.46 5A Escherichia coli (E. coli) Pound River south of North Fork Pound River Lake, Section 4 (BS28). Big Branch Estuary Reservoir River (Acres) (Miles)

(Sq. Miles) Recreation Escherichia coli (E. coli) - Total Impaired Size by Water Type: 1.46

Sources:

Rural (Residential Areas) **Unrestricted Cattle Access**

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-09-BEN North Fork Pound River

Cause Location: This segment includes the headwaters of the North Fork Pound River north of Flat Gap, including Bear Fork,

downstream to Bad Creek confluence at Gilley.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Biological Monitoring station at 6APNK008.28 was impaired based on VSCI scores of 59.4 and 50.5 in 2013 and 37.4 and 61.3

in 2018.

Cycle TMDL
Cause First Dev. Water
Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Priority Size

VAS-Q13R_PNK01A06 / North Fork Pound River / Headwaters of North Fork Pound River north of Flat Gap, downstream to Bad Creek confluence at Gilley, WQS Section 4b (BS28).

5A Benthic Macroinvertebrates Bioassessments 2010 L 4.29

2010 L 4.2

Reservoir

Estuary

North Fork Pound River

Aquatic Life (Sq. Miles)

(Acres) (Miles) **4.29**

River

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:

Sources:

Coal Mining Mountaintop Mining Silviculture Activities Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-10-BAC South Fork Pound River

Cause Location: This segment includes the mainstem from the Donald Branch downstream to confluence with the Pound River west

of the Town of Pound.

City / County: Wise Co.
Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The citizen monitoring station located at 6APNS-RM-MRRP had a 25% exceedance of the E. coli water quality standard AWQM station 6APNS003.38 had a 25% exceedance of the E. coli water quality standard.

Escherichia coli (E. coli) - Total Impaired Size by Water Type:						
Recreation			(Sq. Miles)	(Ac	res)	(Miles)
South Fork Pound River			Estuary	Rese	ervoir	River
VAS-Q13R_PNS02B04 / South Fork Pound River / Mainstem only from Donald Branch downstream to unnamed tributary just upstream of Rat Creek, in Wise County, WQS Section 4 (BS28).	5A	Escherichia coli (E. coli)		2014	L	2.21
VAS-Q13R_PNS01A94 / South Fork Pound River / Mainstem from Glady Fork confluence downstream to confluence with Pound River west of Town of Pound, WQS Section 4 (BS28).	5A	Escherichia coli (E. coli)		2014	L	3.59
VAS-Q13R_PNS01A02 / South Fork Pound River / From unnamed tributary parallel to SR 620 immediately upstream of Rat Creek at Dewey, downstream to the Glady Fork confluence, WQS Section 4 (BS28).	5A	Escherichia coli (E. coli)		2016	L	3.44
_	Cause ategor	y Cause Name		Cycle First Listed	TMDL Dev. Priority	Water Size

Sources:

Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q14R-01-BAC Cranesnest River and Tributaries

Cause Location: This segment extends from the headwaters downstream to the confluence with Bartley Branch at the backwaters of

the Flannagan Reservoir and the upper segment of Birchfield Creek along with Dotson Creek.

City / County: Dickenson Co. Wise Co.

Use(s): Recreation

Cause(s) / VA Category: Escherichia coli (E. coli) / 5A

The AWQM station located at 6ACNR021.72 had a 42% exceedance, station 6ACNR011.66 had a 8% exceedance, and station 6ACNR009.17 had a 13% exceedance and station 6ABLD000.90 had a 42% exceedance and station 6ADOT000.46 had a 33% exceedance of the E.coli standard.

Cuala TMDI

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name		Cycle First Listed	Dev. Priority	Water Size
VAS-Q14R_BLD01A10 / Birchfield Creek / A Cranesnest River tributary from confluence of Happy Hollow downstream parallel to SF 634 to Cranesnest River, south of Darwin, WQS Section 4 (BS32).	5A R	Escherichia coli (E. coli)		2020	L	2.52
VAS-Q14R_CNR01A00 / Cranesnest River / Mainstem Cranesnest River from headwaters southeast of Hurricane downstream to the Honeycamp Branch confluence, upstream of Clintwood, WQS Section 4 (BS33).	5A	Escherichia coli (E. coli)		2010	L	12.93
VAS-Q14R_CNR02A02 / Cranesnest River / Mainstem Cranesnest River from Honeycamp Branch downstream to the Bartley Branch confluence at the backwaters of Flannagan Reservoi in WQS Section 4 (BS33).	5A r	Escherichia coli (E. coli)		2004	L	7.52
VAS-Q14R_DOT01A12 / Dotson Creek / A Birchfield Creek tributary from the Hurricane Branch confluence, parallel to SR 636 south of Bold Camp Mountain in WQS Section 4 (BS32).	5A	Escherichia coli (E. coli)		2020	L	3.81
Cranesnest River and Tributaries			Estuary		ervoir	River
Recreation			(Sq. Miles)	(Ac	cres)	(Miles)
Escherichia coli (E. coli) - Total In	npaire	d Size by Water Type:				26.78

Sources:

Rural (Residential Areas) Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q14R-01-BEN Birchfield Creek and Cranesnest River

Cause Location: This segment includes the mainstem of the Cranesnest River from the headwaters downstream to the Honeycamp

Branch confluence and Birchfield Creek from the confluence with Happy Hollow downstream to the Cranesnest

River.

City / County: Dickenson Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

Benthic stations 66ACNR017.24, 6ACNR018.89 and 6ABLD000.90 were impaired based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Catego	e ry Cause Name	F	cycle First isted	TMDL Dev. Priority	Water Size
VAS-Q14R_BLD01A10 / Birchfield Creek / A Cranesnest River tributary from confluence of Happy Hollow downstream parallel to 634 to Cranesnest River, south of Darwin, WQS Section 4 (BS32).		Benthic Macroinvertebrates Bioassessments	2	2010	L	2.52
VAS-Q14R_CNR01A00 / Cranesnest River / Mainstem Cranesnest River from headwaters southeast of Hurricane downstream to the Honeycamp Branch confluence, upstream of Clintwood, WQS Section 4 (BS33).	5A	Benthic Macroinvertebrates Bioassessments	2	2010	L	12.93
Birchfield Creek and Cranesnest River Aquatic Life			uary Miles)	Rese (Ac	ervoir res)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:						15.45

Sources:

Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q14R-02-BEN Dotson Creek

Cause Location: A Birchfield Creek tributary parallel to Route 636.

City / County: Wise Co. Use(s): Aquatic Life

Cause(s) / VA Category: Benthic Macroinvertebrates Bioassessments / 5A

The biological monitoring station at 6ADOT000.46 was impaired based on VSCI scores of 45.9 and 65.3 in 2018.

Cycle **TMDL** First Dev. Water Cause **Priority** Assessment Unit / Water Name / Location Desc. Category Cause Name Listed Size 3.81 VAS-Q14R_DOT01A12 / Dotson Creek / A Birchfield Creek 2012 Benthic Macroinvertebrates Bioassessments tributary from the Hurricane Branch confluence, parallel to SR 636

Dotson Creek

Aquatic Life

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type: 3.81

Sources:

Coal Mining Surface Mining

south of Bold Camp Mountain in WQS Section 4 (BS32).